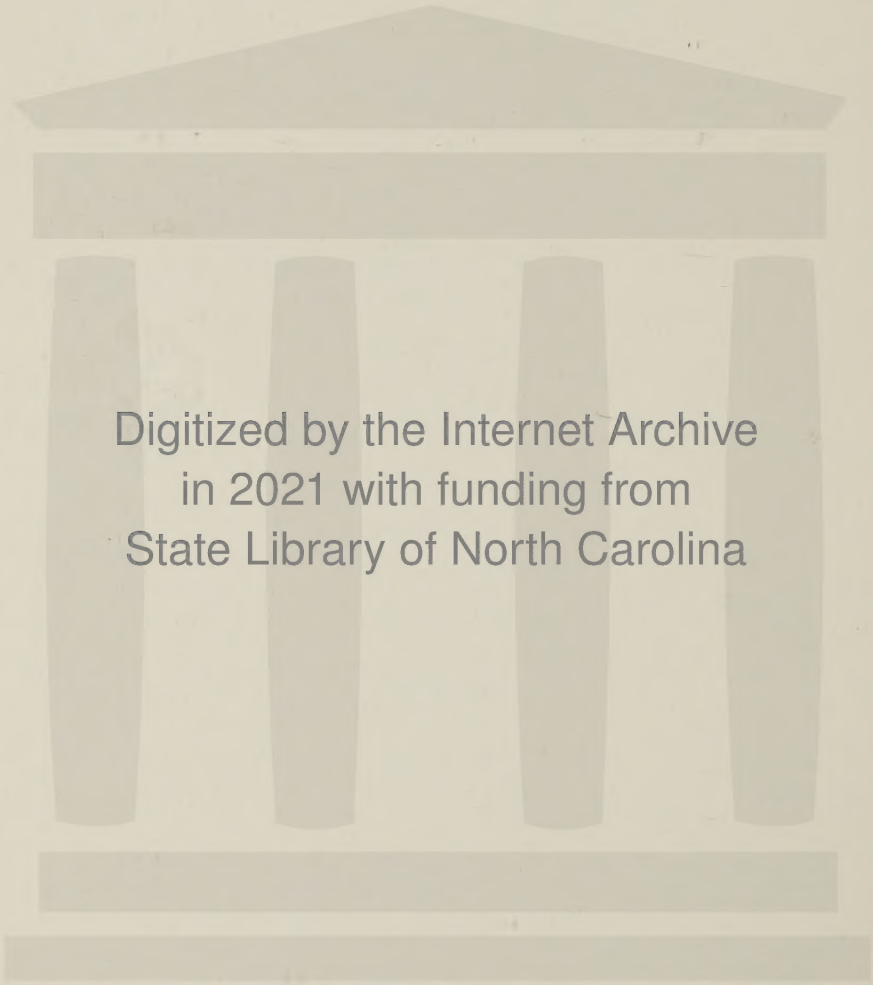
BLUE RIDGE TECHNICAL INSTITUTE

HENDERSONVILLE, NORTH CAROLINA

GENERAL CATALOG 1971-72, 1972-73

G375
3: 197273
North Carolina State Library
Raleigh N. C.
Doc


Digitized by the Internet Archive
in 2021 with funding from
State Library of North Carolina

https://archive.org/details/generalcatalog02blue

BLUE RIDGE TECHNICAL INSTITUTE

A Unit of The
North Carolina Department of
Community Colleges

General Catalog

1971 — 1973

101 North Church Street
Hendersonville, North Carolina 28739
Telephone 704/692-0294

Volume II

September, 1971

TABLE OF CONTENTS

1971 - 72 School Calendar 3
1972 - 73 School Calendar 4
Board of Trustees 5
Administrative Staff 7
Faculty and Staff ..... 8 - 9
General Information 11
- History, Purpose, Location 11
- Admission Information 12
- Fees and Expenses 14
- Student Financial Aid 15
- Registration 17
- Special Students 17
- Auditing 17
- Grading System 17
- Student Records 18
- Withdrawals 18
- Graduation 19
- Attendance 19
- Conduct 20
- Counseling 21
- Housing 21

Continuing Education 23
- Admission, Registration, Expenses 23
- Attendance, Certificates, Instructors 24
- Occupational Extension Education Programs 24
- New Industry Training 25
- Adult Basic Education 26
- Adult High School 26
- High School Equivalency Tests 27
- Community Services 27
- Learning Lab 28

Curriculum Programs 31
- Two-Year Technical Degree Programs 31
- Course Descriptions, Two-Year Technical Programs 38
- One-Year Vocational Diploma Programs 47
- Course Descriptions, One-Year Vocational Diploma Programs 53
- Evening Curriculum Programs 59-60

Directory of Correspondence 62
Floor Plan 64

BLUE RIDGE TECHNICAL INSTITUTE

1971-72 CALENDAR

FALL QUARTER

Registration and Orientation for Freshmen	September 7
Registration for Sophomores and Special Students	September 8
Classes Begin	September 9
Last Day to Drop or Add Classes	September 15
Last Day of Classes	November 24

Labor Day Holiday: September 6
Thanksgiving Holidays: November 25 through 28, Inclusive

WINTER QUARTER

Registration for Full-Time Students	November 29
Registration for Special Students	November 30
Classes Begin	December 1
Last Day to Drop or Add Classes	December 7
Last Day of Classes	February 29

Christmas Holidays: December 18 through January 2, Inclusive

SPRING QUARTER

Registration for Full-Time Students	March 6
Registration for Special Students	March 7
Classes Begin	March 8
Last Day to Drop or Add Classes	March 14
Last Day of Classes	May 25

Easter Holidays: March 31 through April 3, Inclusive

SUMMER QUARTER

Registration for Full-Time Students	June 1
Registration for Special Students	June 2
Classes Begin	June 5
Last Day to Drop or Add Classes	June 9
Last Day of Classes	August 21

Independence Day: July 4

BLUE RIDGE TECHNICAL INSTITUTE

1972-73 CALENDAR

FALL QUARTER

Registration and Orientation for Freshmen	September 5
Registration for Sophomores and Special Students	September 6
Classes Begin	September 7
Last Day to Drop or Add Classes	September 13
Last Day of Classes	November 22

Labor Day Holiday: September 4
Thanksgiving Holidays: November 23 through 26, Inclusive

WINTER QUARTER

Registration for Full-Time students	November 27
Registration for Special Students	November 28
Classes Begin	November 29
Last Day to Drop or Add Classes	December 5
Last Day of Classes	February 26

Christmas Holidays: December 20 through January 1, Inclusive

SPRING QUARTER

Registration for Full-Time Students	March 5
Registration for Special Students	March 6
Classes Begin	March 7
Last Day to Drop or Add Classes	March 13
Last Day of Classes	May 24

Easter Holidays: April 20 through April 23, Inclusive

SUMMER QUARTER

Registration for Full-Time Students	June 7
Registration for Special Students	June 8
Classes Begin	June 11
Last Day to Drop or Add Classes	June 15
Last Day of Classes	August 27

Independence Day Holiday: July 4

BOARD OF TRUSTEES

JOHN GREGORY ..... CHAIRMAN
General Manager, Cranston Print Works
Term Expires June 30, 1977

WILLIAM McKAY ..... VICE-CHAIRMAN
Assistant Cashier, Northwestern Bank
Term Expires June 30, 1975

HUGH D. RANDALL ..... SUPERINTENDENT
Hendersonville City Schools
Term Expires June 30, 1973

J. M. FOSTER ..... SUPERINTENDENT (Retired)
Henderson County Schools
Term Expires June 30, 1979

MALACHI GOFORTH ..... FOREMAN
General Maintenance
E. I. DuPont De Nemours and Co., Inc.
Term Expires June 30, 1973

JAMES T. MAYFIELD ..... FINANCIAL ANALYST
General Electric Company
Term Expires June 30, 1977

BARCLAY B. ORR ..... VICE-PRESIDENT
Barclay Machine Corporation
Term Expires June 30, 1979

ROBERT G. WICK ..... MANAGER
Berkeley Mills
Term Expires June 30, 1975

FRANK W. EWBANK ..... INSURANCE BROKER
Ewbank and Ewbank Real Estate and
Insurance, Inc.
Term Expires June 30, 1979

EDMOND M. WALKER ..... PRESIDENT AND MANAGER
Walker Hardware Company
Term Expires June 30, 1973

PAT WHITMIRE ..... OWNER AND MANAGER
Pat Whitmire Insurance Agency
Term Expires June 30, 1977

FRANK L. FITZSIMONS, JR. ASSISTANT SECRETARY-TREASURER
Mountain Production Credit Association
and Farm Owner and Manager
Term Expires June 30, 1975

DR. WILLIAM D. KILLIAN

PRESIDENT

ADMINISTRATIVE STAFF

DR. WILLIAM D. KILLIAN ..... PRESIDENT
B. S., Appalachian State University; B. S., North Carolina State University at Raleigh; M. A., Appalachian State University; Ed. D., North Carolina State University at Raleigh.

ROBERT F. HILL ... DIRECTOR OF OCCUPATIONAL EDUCATION
B. S., M. A., Appalachian State University.

L. HAROLD McLAUGHLIN .... DIRECTOR OF ADULT EDUCATION
B. S. Ed., Western Carolina University; M. A. Ed., North Carolina State University at Raleigh.

DANNY H. BOST ..... DIRECTOR OF STUDENT PERSONNEL
A. A., Brevard Junior College; A. B., Catawba College; M. A., Appalachian State University.

W. S. McLEOD ..... DIRECTOR OF EXTENSION PROGRAMS
A. A., Ferrum Junior College; B. S., Virginia Polytechnic Institute; Graduate Study, Clemson University.

HAL A. SAIN ..... COUNSELOR
B. S., Western Carolina University; Graduate Study, Western Carolina University.

ANN H. BOYD ..... REGISTRAR
B. S., Mars Hill College.

PAULA R. RUMMAGE ..... BOOKKEEPER
Commercial Certificate, University of North Carolina at Greensboro.

FACULTY

ROYCE JAY ANGEL ..... BUSINESS ADMINISTRATION
B. S., East Tennessee State University; Graduate Study, University of North Carolina at Chapel Hill, North Carolina State University.

IRLAND V. BROWN ..... AUTOMOTIVE MECHANICS
Diploma, French Broad High School; Twelve Years Experience as automotive mechanic.

PEAKE A. DANA ..... COMMUNICATIONS AND SOCIAL STUDIES
University of Florida; B. A., Old Dominion University; M. A., University of North Carolina at Chapel Hill.

CLARENCE J. ENEVOLD . . ELECTRICAL INSTALLATION AND MAINTENANCE
Two years study, University of Minnesota; Diploma, Dunwoody Industrial Institute; Additional Study in Industrial Electronics, R C A Institute; Licensed Electrician in States of Michigan, Illinois, Minnesota, and North Carolina; Twenty Years Experience with Electrical Trades.

BETTY H. FERRIS ..... LEARNING LABORATORY COORDINATOR
B. S.,Western Carolina University; Graduate Study, Western Carolina University, Morehead State University.

HAROLD P. HAMRICK ..... MATH, SCIENCE, ELECTRONICS
A. B., Wofford College; B. S. E. E., North Carolina State University.

JAIRY C. HUNTER ..... BUSINESS ADMINISTRATION
A. A., Wingate College; B. S., Appalachian State University; M. S. in Student Personnel, Appalachian State University; M. S. in Business, Appalachian State University.

WILLIAM DAVID JAMES ..... LEARNING LABORATORY COORDINATOR
A. A., Brevard College; B. S., Western Carolina University; M. A. Candidate, Western Carolina University.

LINDA C. McGLASHAN ..... EXECUTIVE SECRETARIAL TECHNOLOGY
B. A.,Pennsylvania State University; Graduate Study, Westminster College, University of South Florida, and The University of Florida.

FRED H. NIEHOFF, JR. ..... MATH, SCIENCE, AND ENGINEERING
B. I. E., General Motors Institute; M. A. Candidate, Appalachian State University.

ISABELLE C. REED ..... PRACTICAL NURSING EDUCATION
B. S. in Nursing, Montreat College; Diploma, Memorial Mission Hospital School of Nursing.

GAIL S. ROLAND ..... LIBRARIAN
B. S., M. A., Appalachian State University.

THOMAS L. WELLS ..... DRAFTING AND DESIGN
B. S., Western Carolina University; Graduate Study, University of Missouri; M. A., Appalachian State Universtiy.

H. RALPH WOOD ..... WELDING
Diploma, Blowing Rock High School; Diplomas in Machine Shop, Drafting, and Welding, Caldwell Community College and Technical Institute.

OFFICE STAFF

BETTY Y. CLAPP ..... SECRETARY
One Year Study, DePauw University; Commercial Diploma, Bryant and Stratton Business College; Eighteen Years Secretarial Experience.

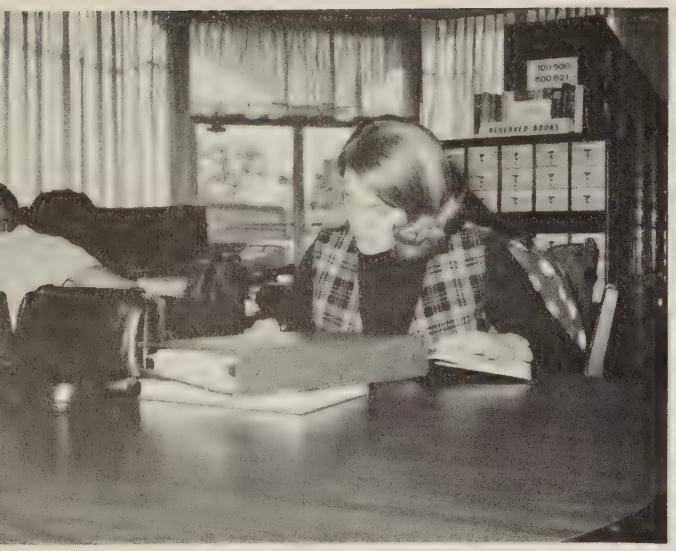
MARTHA J. MINTZ ..... SECRETARY
Diploma, Flat Rock High School; Twelve Years Secretarial Experience.

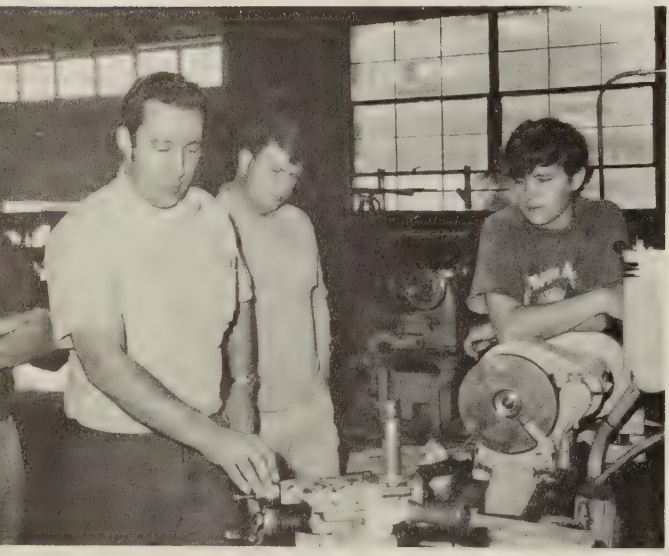
BOBBIE J. SALTZ ..... SECRETARY
Diploma, Brevard Senior High School; Two Years Secretarial Experience.

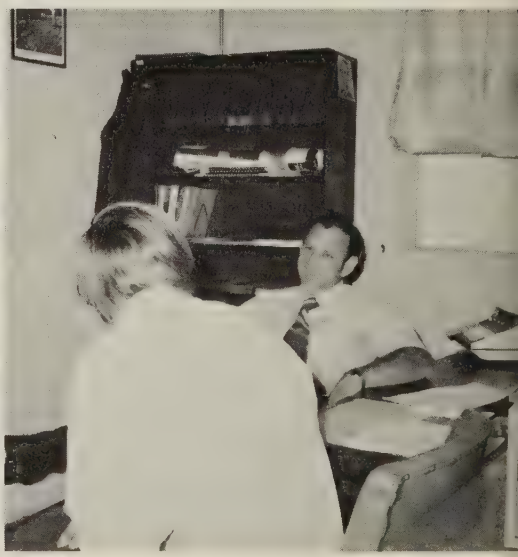
MAINTENANCE STAFF

JOHNNIE L. LANDRUM ..... CUSTODIAN
Twenty-five Years Work Experience.

GENERAL INFORMATION







GENERAL INFORMATION

HISTORY

In 1963, the North Carolina General Assembly authorized a system of comprehensive community colleges and technical institutes to be established in areas of the state where a definite need for such an institution was shown. On the basis of this need and through the combined efforts of interested citizens in Henderson County, Blue Ridge Technical Institute was established as Henderson County Technical Institute in May of 1969. At that time, the citizens of Henderson County approved a bond issue and a special tax levy which provided funds for the construction, operation, and maintenance of a school plant for the institute.

Blue Ridge Technical Institute is one of fifty-six similar institutions which operate under the North Carolina State Board of Education and the Department of Community Colleges. The school's local board of trustees were administered the oath of office on September 9, 1969. The institution began operation on December 1, 1969, with the first course being offered on January 8, 1970. The first full-time curriculum classes began on September 14, 1970. The board of trustees voted to change the name from Henderson County Technical Institute to Blue Ridge Technical Institute on October 12, 1970.

PURPOSE

Blue Ridge Technical Institute operates under an "open door" policy. That is, its doors shall be open to anyone of a suitable age who can profit from what is being offered by the institution. This policy is based on the belief that this institute has something to offer at all educational levels, and that through effective guidance, a person can find his place in an available education program.

The purpose of the institute is to extend universal educational opportunities beyond those presently being offered in the elementary and secondary public schools. These opportunities shall be in the form of technical, vocational, and adult education, and they shall be available to any citizen 18 years of age or older in Henderson County or the surrounding area.

The objectives of this stated purpose are:

1. to provide expanded educational opportunities from the first grade through and beyond high school for the people who would not otherwise continue their education,
2. to provide technical programs in the form of two-year associate degree curriculums which prepare students for jobs in business and industrial occupations,
3. to provide vocational programs in the form of one-year diploma curriculums which prepare students for jobs requiring varying levels of ability and skill,
4. to provide occupational up-grading programs for employed adults who need training or retraining, or who can otherwise profit from the programs, and

5. to provide courses that will meet the general adult and community service needs of the people of the communities served by the institution.

LOCATION AND FACILITIES

Blue Ridge Technical Institute is located in temporary facilities at 101 North Church Street in Hendersonville, Henderson County, North Carolina. The facility, which contains 20,160 square feet of floor space, is divided into shop and laboratory space, classrooms, library and learning laboratory, office and reception space, and student lounge area. In addition, the institute offers classes in its Adult Education Center located in Laurel Park, North Carolina, and at the Transylvania Adult Learning Center located in the annex building of Brevard Junior High School in Brevard, North Carolina.

Situated near the Blue Ridge in the mountain province of North Carolina at an altitude of 2,140 feet, the institute is easily accessible over Interstate 26, Highways 64, 25, 191, and 176. Commercial air service is provided by several major airlines which serve the Asheville Airport located twelve miles north of Hendersonville.

The institute's location between the metropolitan areas of Asheville, North Carolina, and Greenville - Spartanburg, South Carolina, place it near the center of a rapid growth area in southwestern North Carolina. This location is also near several summer resort developments which include Flat Rock, the Pisgah National Forest, Brevard, the Bat Cave - Chimney Rock area, and the Blue Ridge Parkway.

ACCREDITATION

Blue Ridge Technical Institute holds correspondent status with the Southern Association of Colleges and Schools and is actively seeking full accreditation by this regional agency.

The institution is a member of the North Carolina Department of Community Colleges and all programs offered by the institute have been approved by the North Carolina State Board of Education.

CHANGES IN REGULATIONS

Blue Ridge Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure whenever it is deemed necessary.

ADMISSION PROCEDURE AND ENTRANCE REQUIREMENTS

GENERAL ADMISSION REQUIREMENTS

In keeping with its established "open door" policy, Blue Ridge Technical Institute does not impose restrictive standards for admission. Practically all students 18 years of age or older will be admitted.

Although practically all applicants will be admitted to the institution, the student will be required to meet selected minimum require-

ments before admission to a specific curriculum will be granted. Any deficiencies can be completed through courses available at Blue Ridge Technical Institute. This permits the retention of quality in each curriculum and is also beneficial for the applicant by providing a program in which he is capable of making satisfactory progress.

The two-year degree curricula require high school graduation or its equivalency for admission. If an applicant has not graduated from high school or otherwise fulfilled this requirement, he can do so by successfully completing all parts of the General Educational Development Test (GED). Preparation for taking the test can be made through the Learning Laboratory or the Adult High School or Adult Basic Education classes. A tenth grade education or its equivalent is required for admission to the one-year diploma programs.

A student is officially admitted to a curriculum when all requirements are met and the student receives written notification from the Director of Student Personnel.

SPECIFIC ADMISSION REQUIREMENTS

All applicants for admission to a pre-employment technology or vocational program are responsible for fulfilling the following steps:

1. File a completed application for admission form with a $10.00 tuition deposit. The deposit is non-refundable but will be applied to tuition fees the first quarter the applicant is enrolled if within one year from the date the deposit is received.
2. Have records of all previous education mailed to the institute. Applicants who have the high school equivalency certificate should submit a copy of the certificate but should also ask their high school to send transcripts of all work done at the school. **All transcripts must come directly from the school to the technical institute.**
3. Schedule a personal interview with the Director of Student Personnel Services or one of his assistants.

ADMISSION OF OUT-OF-STATE STUDENTS

Out-of-state students are admitted under the same regulations as North Carolina residents. Tuition for out-of-state students will be $400 per academic year for the 1971-72 school year and $550 per academic year for the 1972-73 school year.

ADMISSION OF TRANSFER STUDENTS

Blue Ridge Technical Institute will accept credits from all institutions within the Department of Community Colleges as well as from other accredited colleges, technical institutes, and business and vocational schools. Credits earned at other institutions with a grade of "C" or better, or the average grade of that institution, will be accepted in transfer. The content of the course being transferred must parallel the content of similar courses offered by Blue Ridge Technical Institute.

CREDIT BY ADVANCED PLACEMENT

Credit may be given in specialized cases depending upon evaluation by the Director of Student Personnel, Director of Occupational Education, and the course area instructor. Consideration for advanced placement should be made at the beginning of an applicant's program. The applicant must request and successfully complete an examination which will be administered by the course area instructor or by the Director of Student Personnel Services. The examining official's decision will be final.

FEES AND EXPENSES

GENERAL FEES

A major objective of Blue Ridge Technical Institute is to provide quality education at the lowest possible cost for the student. Tuition and fees paid by students are kept at a minimum and do not represent the total operating expenses of the institute. The balance is provided by local, state, and federal tax funds.

Quarterly registration fees are payable at the time of registration and include all charges applicable to the quarter. These fees are as follows:

Tuition Per Quarter	
Full-time Student	$32.00
Part-time Student	
(Cost Per Quarter Hour)	2.50
Student Activity Fee	10.00 Per Year
Graduation Fee	
Degree Programs	13.00
Diploma Programs	11.00
Late Registration	5.00

For tuition purposes, a full-time student is one who is enrolled for 13 credit hours or more. Credit hours may be computed by the following formula:

1 class hour = 1 credit hour
2 lab. hours = 1 credit hour
3 manipulative lab. hours = 1 credit hour

TEXTBOOKS AND SUPPLIES

The cost of textbooks and supplies will vary according to the program of study. Average cost will vary from $20.00 to $30.00 per quarter for full-time students. The institute operates a bookstore where these supplies may be purchased.

REFUND POLICY

Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within ten (10) calendar days after the first day of classes as published in the institute's calendar.

Tuition refunds will not be considered for tuitions of five dollars ($5.00) or less except when a course or curriculum fails to materialize; then all the student's tuition shall be refunded. No refund will be made of the tuition deposit unless the applicant is refused admission to the program for which he applied.

REFUNDS FOR VETERANS

Veterans or war orphans receiving benefits under U. S. Code, Title 38, Chapters 33 and 35, may be refunded the pro rata portion of the tuition fee not used at the time of withdrawal. There will be no refund of special fees such as those charged for late registration.

FULFILLMENT OF FINANCIAL OBLIGATIONS

No degree, diploma, certificate, or course credit will be granted, nor will a transcript be provided for a student until all financial obligations to the institute, other than student loans, have been paid.

All previously incurred expenses and accounts, including library fines, must be fully paid before a student may re-enter at the beginning of any quarter.

FINANCIAL AID

GENERAL INFORMATION

Students in need of financial aid can receive assistance from scholarship funds, loan funds, and the federal work-study program. Additional funds are available for veterans, children or widows of deceased veterans, and disabled or handicapped persons. Application for financial assistance should be filed with the office of Student Personnel Services when making application for admission to the Institute.

SCHOLARSHIPS

Limited scholarship funds are available for students in need of financial assistance. These funds have been made available by interested citizens and local civic organizations. Information concerning these scholarships is available in the office of Student Personnel Services.

LOANS

Low interest student loans are available through the College Foundation, Incorporated. Interested students who indicate financial need may borrow up to $1,000 yearly. The interest rate on this money varies depending upon the actual source of monies borrowed. In addition, funds donated by the North Carolina Consumer Finance Association are available under the Vocational Student Loan Program. Students demonstrating financial need may borrow up to $300 annually at an interest rate of 3½ percent.

WORK-STUDY PROGRAM

A limited number of students may be employed on a part-time basis by the institute under the provisions of the federal work-study program. Applicants for work-study must be under 21 years of age and show that earnings are needed to commence or continue training at the institute on a full-time basis.

VOCATIONAL REHABILITATION

Vocational Rehabilitation offers services necessary to enable a physically or mentally employment-handicapped person to become self-supporting. Eligible handicapped persons may receive financial assistance while enrolled at Blue Ridge Technical Institute.

Prospective students having a physical disabilty who desire to apply for training under the provisions or this program should contact the Division of Vocational Rehabilitation Office in Hendersonville.

VETERANS, WAR ORPHANS, WIDOWS, AND WIVES, EDUCATIONAL ASSISTANCE

All programs offered by Blue Ridge Technical Institute are approved for training under the provisions of Title 38, U. S. Code (G I Bill of Rights). Qualified persons may receive up to $175.00 per month while attending on a full-time basis. To be classified as a full-time student, a Veteran must attend class 25 hours per week in a technical curriculum or 30 hours per week in a vocational curriculum.

Persons interested in attending school under the provisions of this program should contact any local Veterans Service Office.

ACADEMIC REGULATIONS

DEGREES, DIPLOMAS, AND CERTIFICATES

The Associate of Applied Science Degree (A.A.Sc.) is awarded to graduates in all two-year degree programs. This degree is conferred in the name of the North Carolina State Board of Education and Blue Ridge Technical Institute.

A State Diploma issued in the name of the North Carolina State Board of Education and Blue Ridge Technical Institute is awarded candidates who successfully complete a one-year vocational program of study.

Certificates are issued in the name of Blue Ridge Technical Institute to students who successfully complete any short-term program of study.

UNIT OF CREDIT

The unit of credit at Blue Ridge Technical Institute is the quarter hour. The school year consists of four quarters each containing fifty-five class days. For the credit value of a given course, consult the course descriptions in this catalog.

REGISTRATION

Procedures for registration will be provided for the student prior to the beginning of each quarter. Dates of registration are listed in the calendar in this catalog, and students are expected to register on the day or days specified for each quarter. Failure to register on the specified days will result in the student being required to pay the $5.00 late registration fee.

No registrations are permitted in credit classes after the last day for adding or dropping courses as listed in the school calendar.

Changes in schedules must be approved by the student's faculty advisor and arranged through the office of Student Personnel Services.

Registration for non-credit classes is usually held at the first class meeting of the course.

SPECIAL STUDENTS

Students may enroll for individual curriculum classes and be classified as special students. Credits earned by such students may be applied to a degree or diploma depending upon the level of such work. Permission to register as a special student is granted at the discretion of the office of Student Personnel Services. Enrollment in a specific class is granted with the stipulation that full-time curriculum students have first priority to the class.

AUDITING

A student who audits a course pays the registration and tuition fees. Auditors do not take tests or examinations, nor do they receive grades or credit, and they cannot later change the "audit" to credit.

GRADING SYSTEM

Grades issued by the institute are based upon quality and quantity of achievement of the objectives of the course being taken. The following numerical marking system will be used for recording student achievement.

A (93-100)	Excellent
B (86-92)	Above Average
C (78-85)	Average
D (70-77)	Passing
F (Below 70)	Failing
I (INC)	Indicates failure to complete certain course requirements because of extenuating circumstances. All incompletes must be removed before the end of the succeeding term or the incomplete automatically becomes a failure. Two or more incompletes in a quarter will result in the student being required to carry a reduced load the follow-

	ing quarter. Students with three or more incompletes may register for the following quarter by special permission only.
WP	Student dropped the course but had a passing grade average on the date of withdrawal.
WF	Student dropped the course and had a failing grade average on the date of withdrawal.
AUD	Student attends classes, takes no tests or exams, and no grade or credit is given.

Failing grades cannot be removed from a student's record. If a course is successfully repeated, the second grade is recorded as the final grade. Both grades will be used in computing the student's class rank or average.

STUDENT RECORDS, GRADE CHANGES, AND MID-TERM REPORTS

All grades are recorded in a student's official transcript at the completion of each quarter. The student will be furnished with a report of these grades.

Once grades have been awarded, they may be changed **only** with the written authorization of the instructor and the approval of the Director of Occupational Education.

The instructor shall be responsible for providing each student with a mid-term status report whenever the student's progress becomes unsatisfactory. A copy of this report should also be given the student's advisor so that proper counseling may be provided.

ACADEMIC PROBATION

Regularly enrolled students are placed on academic probation for one quarter when their quarterly grade average falls below 70 or when they pass less than sixty (60) percent of the credit hours attempted in the quarter. When a student is placed on probation he is so notified in writing.

A student who fails to maintain satisfactory academic progress for two successive quarters may be asked to enroll in additional preparatory courses of study or to transfer to another program within the institute.

Counseling services to help the student in overcoming academic difficulties or in selecting an alternate program of study will be offered by the office of Student Personnel Services.

WITHDRAWALS

The official dropping of a course must be arranged through the office of Student Personnel Services. Failure to officially withdraw from a course will result in the loss of re-entry privileges for one year and all grades for the quarter being entered as failing.

Withdrawals made prior to the end of the seventh week will result in the student receiving a WP orWF depending upon the status of the student's grades at the time of withdrawal. Official withdrawals may not be made after the seventh week except in case of emergency situations.

GRADUATION REQUIREMENTS

The student will be held responsible for fulfilling all requirements for the degree or diploma which he expects to receive. To meet these requirements, the student should:

1. Apply to the office of Student Personnel Services for his degree or diploma at the beginning of the last quarter he is enrolled. This application should be accompanied by the required graduation fee.
2. Insure that minimum requirements in credit hours and required courses for his particular course of study have been met. These requirements have been established by the institution and are listed under "Programs of Study" in this catalog.
3. Fulfill all financial obligations to the institution.
4. Complete a minimum of one-half the required quarter hours as a resident student at Blue Ridge Technical Institute. The final fifteen credit hours of study prior to graduation must be completed at the institute unless special permission is obtained from the office of Student Personnel Services.

All candidates for graduation are required to participate in graduation exercises to receive the degree or diploma unless excused by the Director of Student Personnel Services.

ATTENDANCE

Regularity of class attendance is necessary in order to receive maximum benefits from the program offered and for maintenance of a satisfactory academic record. Whenever a student's attendance or punctuality record endangers his own success or that of other students, he may be dropped from the course. Absences will be considered justifiable and excusable only in cases of emergencies, serious illness, or death in the immediate family.

A student is expected to confer with each instructor before anticipated or after unavoidable absences. The instructor will determine if the excuse is justifiable and inform the student of his decision. The instructor shall also be responsible for informing the office of Student Personnel Services when a student's absences have become excessive.

The responsibility of making up work missed when student's absences are excused rests entirely with the student. Unexcused absences will result in a zero for the work missed.

STUDENT CONDUCT

A student enrolled at Blue Ridge Technical Institute may rightfully expect that the teachers and administrators will maintain an environment in which there is freedom to learn. This requires that there be appropriate conditions and opportunities in the classroom and on the campus.

A student at Blue Ridge Technical Institute assumes an obligation to conduct himself in a manner compatible with the institute's function as an educational institution. It is expected that the student will adhere to the rules and regulations as may be established by the institute and the student body, and that the student will respect the rights, privileges, and property of other members of the institutional community. A student is responsible for his own conduct and violation of established rules and regulations may subject him to disciplinary measures or dismissal.

TRAFFIC REGULATIONS

Limited parking facilities are available in the institute's parking lot on the corner of Church Street and Second Avenue. Street parking is available on the streets west of the campus. Any violations of local parking or traffic regulations will be the responsibility of the student involved.

OTHER STUDENT SERVICES

GUIDANCE AND COUNSELING

Counseling services are available for students who desire assistance with vocational, educational, or personal problems. All interviews with the counselor are conducted in strict confidence.

In addition, each student is assigned a faculty advisor who will assist in planning class schedules, in registration, and in other problems which might arise. Students are urged to consult their advisors when problems develop.

PLACEMENT SERVICES

Although Blue Ridge Technical Institute does not guarantee placement upon graduation, every effort will be made to help students find suitable employment. Records of interested employers will be maintained, and interviews with prospective employers will be arranged. There will be no charge to industry or students for this service.

HOUSING

Although the institute does not provide housing, an active file of available housing is maintained, and assistance in locating suitable living quarters for students will be provided.

TESTING

Included in the counseling program are individual and small group tests which may be given on student request, and/or on the recommendation of a counselor.

CONTINUING EDUCATION

CONTINUING EDUCATION

Continuing education infers a life-long learning process. It is the purpose of Blue Ridge Technical Institute to afford this opportunity to each individual to develop to his fullest potential in whatever vocational, intellectual or cultural areas he desires. It is also the aim of the institute to be of service to area industries, businesses, and public agencies by providing training and upgrading for employees. To meet these aims the Extension and Adult Education Division of the institute will help make continuing education available by offering a variety of courses and programs.

The development of continuing education for adults is based upon the interest shown by the community, availability of competent instructors, and the limitations of available equipment, space, and funds. Whenever possible, courses are arranged as community needs or interests are indicated. Some classes, constantly in demand, are offered on a continuing basis. Others are started at the requests of individuals or organizations. The institute welcomes such requests and suggestions for additional courses.

Continuing education classes conducted by Blue Ridge Technical Institute are both vocational and avocational in nature. These classes are non-curriculum, vary in length, are conducted both day and evening, and are taught by qualified instructors selected by the institute. A schedule of classes being offered is published by the institute prior to each quarter and during the quarter as new classes are arranged.

Continuing education information common to both the Extension and Adult Education Divisions is as follows:

ADMISSION

Any adult, 18 years of age or older, who is not enrolled in public school is eligible to enroll.

REGISTRATION

Adults should notify the institute by phone, letter, or personal visit to place their names on the pre-registration list for each class. Registration will be held at the first class meeting.

EXPENSES

In most continuing education classes the only cost is for books and materials. A small charge may be necessary in some courses for class supplies. Books and supplies are available through the Institute Bookstore. When classes meet at neighborhood locations, the Institute Bookstore makes it possible for books to be purchased at the class meeting place.

CLASS LOCATIONS

A number of continuing education classes are held at Blue Ridge Technical Institute. Others are conducted throughout Henderson and Transylvania Counties at local public schools, community centers, churches, industries, businesses or wherever a suitable meeting place can be arranged. Classes are organized in any community whenever a sufficient number of prospective class members indicate an interest.

ATTENDANCE

A minimum enrollment of 12 persons is needed to conduct a class. Adults are expected to attend class regularly. Attendance records are maintained by instructors. Insufficient enrollment or attendance will result in cancellation of the class.

CERTIFICATES

Certificates are awarded in certain classes to students successfully completing course requirements. Also, a Certificate of High School Equivalency is awarded to adults who successfully complete the high school equivalency tests.

INSTRUCTORS

Qualified instructors, as determined by the Extension and Adult Education Divisions, will be employed for continuing education classes. Leaders from the community in civic, cultural, educational, industrial and business fields as well as persons skilled or knowledgeable in particular areas of interest are available as instructors.

OCCUPATIONAL EXTENSION EDUCATION PROGRAMS

Extension classes are designed to meet the needs of industry, business and other areas of occupational endeavor. Specifically, where there is a need for:

1. Upgrading for those within a specific occupation.
2. Retraining classes for those wishing to change their vocation.
3. Preparation of individuals for initial employment.

All classes are organized where a demand for certain skills are required, based upon the needs of the firm or group as represented. The classes may be arranged singly, as a cluster of courses, or on a long-range schedule. In some cases, advisory committees made up of knowledgeable personnel from industry and business assist in the determination of needs and organization of courses. Flexibility is the key asset in the Occupational Extension Program.

Classes will be conducted in any location which is suitable and which meets the requirements of all groups concerned.

The following is a partial list of the many areas of training available:

Fire Service Training
Hospitality and Tourism Education
Woodworking Occupations
Law Enforcement
Building Trades Courses
Agricultural Business and Production
Equipment Maintenance (various areas)

The above are only a few of the broad areas of instruction.

SUPERVISORY DEVELOPMENT TRAINING

One of the special emphasis programs in the extension division is Supervisory Development Training. The current SDT Program consists of twenty-one well prepared courses which, in many instances, can be taught almost verbatim. Each course of training serves one or more of the following purposes: to help develop potential supervisors to assume full supervisory responsibilities; to prepare present supervisors for advancement to greater responsibilities; to improve abilities of supervisors at all levels; and most importantly, to make supervisors and potential supervisors more proficient in their present assignments. A supervisor may pursue as many of the courses as he desires and thereby afford himself an opportunity for extensive training. Emphasis has been placed on group dynamics and creative problem-solving techniques. Classes are scheduled to meet the needs of local industry and business, and qualified instructors are provided without charge. Please contact the Director of Extension Programs for further information concerning specific courses.

NEW INDUSTRY TRAINING

One of the basic objectives of Blue Ridge Technical Institute is to stimulate the creation of more challenging and rewarding jobs for the people of our area by providing a customized training service to new and expanding industries. Subject to only minimal limitations, this institution, in cooperation with the Industrial Services Division of the State Department of Community Colleges, will design and administer a special program for training the production manpower required by any new or expanding industry creating new job opportunities in North Carolina.

This program includes the following services:

1. Consultation in determining job descriptions; defining ares of training; and in prescribing appropriate course outlines, training schedules, and materials.
2. Selecting and training of instructors. These instructors may be recruited from the company and from outside sources.
3. Payment of instructors' wages for the duration of the training program.
4. Provision of suitable space for a temporary training facility prior to the completion of the new plant, should such temporary space

be required. This may be space within Blue Ridge Technical Institute or leased space in the community.

5. Assumption of installation costs of equipment in the temporary training facility.
6. Payment for one-half of the cost of nonsalvageable materials expended in the training program.

The purpose of this service is to help a new or expanding industry meet its immediate manpower needs and to encourage each industry to develop a long-range training program of its own to satisfy its continuing replacement and retraining needs.

For further details of this service, please contact the President, Blue Ridge Technical Institute or the Director, Industrial Services Division, North Carolina Department of Community Colleges, Raleigh, North Carolina.

ADULT BASIC EDUCATION

Adults who have less than a high school education may enroll in Adult Basic Education. Originally authorized under the Economic Opportunity Act of 1964, and later by the Adult Education Act of 1966, the program is now administered by the U. S. Office of Education. In North Carolina, the Department of Community Colleges has been designated as the agency in charge of the program. As a member of this department, Blue Ridge Technical Institute has been assigned Henderson and Transylvania Counties as an Adult Basic Education service area. To serve this area, classes are usually held two evenings per week in Brevard and Hendersonville and at neighborhood locations.

The ABE program includes instruction in reading, writing, social studies, math, science, consumer education, and health education. In all these areas, instruction is related as closely as possible to helping students meet their adult responsibilities. Students enrolled in ABE classes benefit from individual study, teacher explanations, group discussions, progress evaluations, and modern educational materials including books, worktexts, and audio-visual materials and equipment. No registration fees are charged and all books and materials are provided by the institute.

ABE classes lay the groundwork for many individuals to sufficiently raise their achievement level to pass the General Educational Development Tests and obtain a high school equivalency certificate.

Students may enter ABE classes at any time. However, all individuals are encouraged to enroll during the registration period at the beginning of each quarter. It is advisable also, for students to maintain attendance in ABE classes over a period of several school quarters. This continuity facilitates learning and enables students to take advantage of the complete program being offered.

ADULT HIGH SCHOOL

Adults who would like to complete their high school education may enroll in the Adult High School Program. Classes in mathematics, Eng-

lish, science, and social studies are available. In all these classes, instruction is designed to help students review high school subjects or obtain a certificate of high school equivalency. After sufficient preparation, individuals may take a series of tests called the General Educational Development Tests (GED). Those receiving an acceptable passing score will be awarded a High School Equivalency Certificate. This certificate is generally accepted on a basis equal to a high school diploma for employment, promotion, or for further education. Preparation for the tests can be made through both the Adult Basic and High School Program and the Learning Laboratories of the Institute.

HIGH SCHOOL EQUIVALENCY TESTS

Blue Ridge Technical Institute has been designated as an official testing center for the General Educational Development Tests. To adults who did not previously complete high school, the North Carolina Department of Public Instruction will issue a "Certificate of High School Equivalency" when they meet the following requirements:

1. Make a Standard score of 35 or above on each of the five tests and an average standard score of 45 on all five tests.
2. Be nineteen years of age or older. (A person 18 years of age may take the test provided he has not been enrolled in public school for six months.).
3. Make application for tests on official application blanks that are available at Blue Ridge Technical Institute.
4. Pay a testing fee of $3.00.

Preparation for taking the test can be made through the Learning Laboratories or the Adult Basic and High School classes.

Interested persons should contact the Student Personnel Office to obtain information about the time and dates the GED tests will be scheduled.

GENERAL ADULT AND COMMUNITY SERVICES

General Adult and Community Service classes and programs are offered by Blue Ridge Technical Institute to afford the opportunity for individuals to gain personal satisfaction through self-advancement. This includes opportunities to grow intellectually, to develop creative skills or talents, to learn hobby or leisure time activities, and to gain civic and cultural awareness. The programs enable the community to take advantage of educational opportunities by utilizing the educational, financial, human, physical or other resources available through Blue Ridge Technical Institute.

Because of the organizational flexibility of the General Adult and Community Service programs a wide variety of classes, lectures, seminars, workshops and conferences are conducted both on campus and in other locations within the institute service area of Henderson and Transylvania Counties.

General adult and community service classes fall into the following broad categories:

Adult High School
Advanced Academic Courses
Personal Typing, Speedwriting, etc.
Citizenship
Civil Defense
Consumer Education
Creative Arts
Driver Education
Family Life
Foreign Language
Personal Health
Homemaking
Industrial Arts
Language Arts
Safety
Self-Supporting Classes

For many specialized classes within the categories listed above, please contact the Director of Adult Education.

LEARNING LAB.

The learning labs are study centers which offer individuals a new way to learn through the use of programmed and self-instructional materials and the use of audio-visual learning aides. These materials are available in a wide variety of subjects and in a wide range of levels.

Any adult, who is over eighteen and not presently enrolled in high school, may use the facilities in the learning labs. One may enroll simply by coming to one of the learning labs and talking with the coordinator. There is a brief form to be filled out. There is no charge made for use of the materials in the learning labs.

In the Learning Labs a person may:

1. Study for the General Educational Development Tests.
2. Prepare himself for further education in a technical institute or college.
3. Study a subject in academic or general interest areas.
4. Improve in his job skill area.

Programmed or self-instructional materials are available in the following areas:

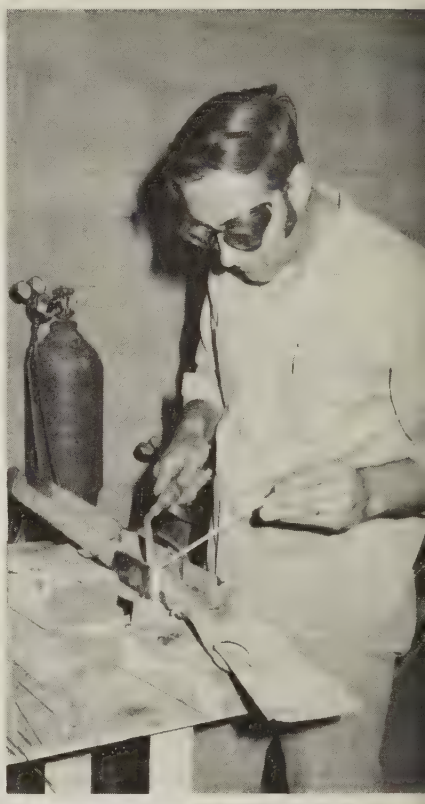
1. Language Arts - reading, vocabulary, spelling, grammar, letter writing, college English.
2. Mathematics - arithmetic, consumer math, algebra I and II, plane geometry, solid geometry, trigonometry, calculus, the slide rule.
3. Foreign Language - German, Spanish, French.
4. Business - economics, accounting, business math, filing skills, shorthand I and II, bookkeeping.

5. Science - biology, chemistry, physics, general science, geology, meteorology, astronomy, electricity, electronics.
6. Social Studies - American history, world history, black history, government, geography, map reading.
7. Others - medical terminology, chess, interior decoration, handwriting improvement, listening skills, study methods, etc.

These are only a few of the many areas of study available. If materials covering an area of special interest are not already available in the learning labs, it may be possible to obtain these for the individual student.

Learning Lab facilities are presently located in both Hendersonville and Brevard. In Henderson County the learning lab is located at Blue Ridge Technical Institute in the Learning Resource Center. The hours are from 8:00 a.m. to 10:00 p.m., Monday through Thursday and from 8:00 a.m. to 5:00 p.m. on Friday. In Brevard the learning lab is located in the Adult Learning Center in the annex building of Brevard Junior High School. The Transylvania County Learning Lab is open from 1:30 p.m. to 9:30 p.m., Monday through Thursday and from 8:00 a.m. to 5:00 p.m. on Friday. A learning lab coordinator is available during these hours to assist in the use of the various programs. The individual sets his own schedule at his convenience and to meet his needs within these time periods.

CURRICULUM PROGRAMS



TWO-YEAR TECHNICAL DEGREE PROGRAMS

The two-year technical degree programs described below are organized on a seven quarter basis, each quarter consisting of eleven weeks or fifty-five school days. The graduate of these curriculums is awarded the Associate of Applied Science degree.

Associate Degrees are offered in four areas of study in two technical divisions of the institute. The two technical divisions and the curricula offered are:

BUSINESS TECHNOLOGY DIVISION

Areas of Study
Business Administration Technology
Executive Secretarial Technology
General Office Technology

ENGINEERING TECHNOLOGY DIVISION

Area of Study
Mechanical Drafting and Design Technology

BUSINESS ADMINISTRATION TECHNOLOGY, T-018

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this state, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. The Business Administration Technology Curriculum is designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in many phases of administrative work that might be encountered in the average business.

The specific objectives of the Business Administration Curriculum are to develop the following competencies:

1. Understanding of the principles or organization and management in business operations.
2. Understanding our economy through study and analysis of the role of production and marketing.
3. Knowledge in specific elements of accounting, finance, and business law.
4. Understanding and skill in effective communication for business.

5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

The graduate of the Business Administration Curriculum may enter a variety of career opportunities from beginning sales person or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms. These encompassments might include: making up and filing reports, tabulating and posting data in various books, sending out bills, checking calculations, adjusting complaints, operating various office machines, and assisting managers in supervising. Positions are available in businesses such as advertising; banking; credit; finance; retailing; wholesaling; hotel, tourist, and travel industry; insurance; transportation; and communications.

BUSINESS ADMINISTRATION TECHNOLOGY, T-018

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
T-ENG	101	Communication Skills I	3	0	3
T-BUS	102	Typewriting I (or elective)	2	3*	3
T-MAT	110	Business Mathematics	5	0	5
T-BUS	101	Introduction to Business	5	0	5
			15	3	16
SECOND QUARTER					
T-ENG	102	Communication Skills II	3	0	3
T-BUS	110	Office Machines I	2	3*	3
T-BUS	120	Accounting I	3	2	4
T-BUS	115	Business Law I	3	0	3
T-BUS	123	Business Finance I	3	0	3
			14	5	16
THIRD QUARTER					
T-ECO	102	Economics I	3	0	3
T-ENG	103	Report Writing	3	0	3
T-BUS	124	Business Finance II	3	0	3
T-BUS	121	Accounting II	3	2	4
T-BUS	116	Business Law II	3	0	3
			15	2	16
FOURTH QUARTER					
T-ECO	104	Economics II	3	0	3
T-BUS	222	Accounting III	3	2	4
T-ENG	204	Oral Communications	3	0	3
T-BUS	232	Sales Development	3	0	3
T-SSC	---	Social Science Elective	3	0	3
			15	2	16
FIFTH QUARTER					
T-EDP	104	Introduction to Data Processing Systems	3	2	4
T-BUS	239	Marketing	5	0	5
	---	Business Elective	3	0	3
T-BUS	243	Advertising	3	2	4
			14	4	16

SIXTH QUARTER					
T-BUS	235	Business Management	3	0	3
T-SSC	---	Social Science Elective	3	0	3
T-BUS	272	Principles of Supervison	3	0	3
	---	Electives	6	0	6
			15	0	15
SEVENTH QUARTER					
T-BUS	229	Taxes	3	2	4
T-BUS	271	Office Management	3	0	3
	---	Business Electives	6	0	6
T-ENG	206	Business Communications	3	0	3
			15	2	16

Total Credit Hours in Required Courses	96
Minimum Credit Hours in Electives	15
Total Credit Hours Required	111

*"Manipulative Laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

EXECUTIVE SECRETARIAL TECHNOLOGY, T-030

The well-trained executive secretary is an important company member wherever she is found in business, industry, government, or the professions. Her value to these organizations is widely known. She generally has pleasant and comfortable working conditions, is engaged in interesting projects and work, and with experience, may advance to office supervisory positions. With the increased expansion of the business world, job opportunities for individuals with this training will continue to grow.

The graduate of the executive secretarial technology program may be employed as a stenographer or as a secretary. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The secretary, in addition to taking dictation and transcribing, is given more responsibility in connection with meeting office callers, screening telephone calls, and in being an assistant to an executive.

In order to prepare the graduate for assuming these responsibilities, the curriculum offered by Blue Ridge Technical Institute provides training in the secretarial skills of typing, dictation, transcription, and office terminology. In addition, a variety of related courses are included in the curriculum to provide a broader perspective for the students. These related courses include mathematics, accounting, business law, economics, and professional secretarial development.

EXECUTIVE SECRETARIAL TECHNOLOGY, T-030
CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
T-BUS	101	Introduction to Business	5	0	5
T-BUS	102	Typewriting I (or elective)	2	3*	3
T-MAT	110	Business Mathematics	5	0	5
T-BUS	106	Shorthand I (or elective)	3	2	4
			15	5	17
SECOND QUARTER					
T-ENG	101	Communication Skills I	3	0	3
T-BUS	107	Shorthand II	3	2	4
T-BUS	120	Accounting I	3	2	4
T-BUS	103	Typewriting II (or elective)	2	3*	3
T-BUS	115	Business Law I	3	0	3
			14	7	17
THIRD QUARTER					
T-ENG	102	Communication Skills II	3	0	3
T-BUS	104	Typewriting III	2	3*	3
T-BUS	108	Shorthand III	3	2	4
T-BUS	110	Offices Machines I	2	3*	3
T-BUS	112	Filing	3	0	3
			13	8	16
FOURTH QUARTER					
T-ENG	103	Report Writing	3	0	3
	---	Business Elective	3	0	3
T-BUS	205	Advanced Typewriting	2	3*	3
T-BUS	211	Office Machines II	2	3*	3
T-SSC	---	Social Science Elective	3	0	3
			13	6	15
FIFTH QUARTER					
T-EDP	104	Introduction to Data Processing Systems	3	2	4
T-BUS	206E	Dictation and Transcription I (Executive)	3	2	4
T-ENG	206	Business Communication	3	0	3
	---	Business Electives	6	0	6
			15	4	17
SIXTH QUARTER					
T-ENG	204	Oral Communications	3	0	3
T-BUS	207E	Dictation and Transcription II (Executive)	3	2	4
T-BUS	214	Secretarial Procedures	3	2	4
T-SSC	---	Social Science Elective	3	0	3
	---	Business Elective	3	0	3
			15	4	17
SEVENTH QUARTER					
T-BUS	208E	Dictation and Transcription III (Executive)	3	2	4
T-BUS	271	Office Management	3	0	3
T-BUS	191	Payroll Procedures	3	0	3
T-BUS	210E	Typing Office Practice (Executive)	3	2	4
	---	Elective	3	0	3
			15	4	17

Total Credit Hours in Required Courses	101
Minimum Credit Hours in Electives	15
Total Credit Hours Required	116

*"Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

GENERAL OFFICE TECHNOLOGY, T-033

More individuals are employed in clerical occupations than in any other job category. With the increase of automation and production, there will develop an increased need for individuals who possess technical skills and adaptability for diversified jobs in the clerical field. The General Office Technology program is designed to prepare individuals to fulfill these employment needs.

This program provides specialized training in the skill areas, and adds basic knowledge and additional skills to prepare the student for employment in a modern business office. Graduates of this program may be employed as administrative assistants, accounting clerks, assistant office managers, bookkeepers, file clerks, machine transcriptionists, or in a variety of other clerical-related jobs. Opportunities for employment are available in all types of business and governmental agencies.

GENERAL OFFICE TECHNOLOGY, T-033

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
T-BUS	101	Introduction to Business	5	0	5
T-BUS	102	Typewriting I (or elective)	2	3*	3
T-MAT	110	Business Mathematics	5	0	5
T-PSY	112	Professional Secretarial Development	3	0	3
T-ECO	108	Consumer Economics	3	0	3
			18	3	19
SECOND QUARTER					
T-ENG	101	Communication Skills I	3	0	3
T-BUS	120	Accounting I	3	2	4
T-BUS	103	Typewriting II (or elective)	2	3*	3
T-BUS	115	Business Law I	3	0	3
T-BUS	110	Office Machines I	2	3*	3
			13	8	16
THIRD QUARTER					
T-ENG	102	Communication Skills II	3	0	3
T-BUS	104	Typewriting III	2	3*	3
T-ECO	102	Economics I	3	0	3
T-BUS	112	Filing	3	0	3
T-BUS	121	Accounting II	3	2	4
			14	5	16
FOURTH QUARTER					
T-ENG	103	Report Writing	3	0	3
T-BUS	205	Advanced Typewriting	2	3*	3
T-BUS	211	Office Machines II	2	3*	3
T-SSC	---	Social Science Elective	3	0	3
T-BUS	222	Accounting III	3	2	4
			13	8	16
FIFTH QUARTER					
T-EDP	104	Introduction to Data Processing Systems	3	2	4
T-ENG	206	Business Communication	3	0	3
	---	Business Electives	6	0	6
T-BUS	232	Sales Development	3	0	3
			15	2	16

SIXTH QUARTER					
T-ENG	204	Oral Communications	3	0	3
T-BUS	214	Secretarial Procedures	3	2	4
T-SSC	---	Social Science Elective	3	0	3
T-BUS	212	Machine Transcription	2	3*	3
	---	Business Electives	3	0	3
			14	5	16
SEVENTH QUARTER					
T-BUS	271	Office Management	3	0	3
T-BUS	191	Payroll Procedures	3	0	3
T-BUS	210E	Typewriting Office Practice (Executive)	3	2	4
T-BUS	229	Taxes	3	2	4
	---	Business Electives	3	0	3
			15	4	17

Total Credit Hours in Required Courses	104
Minimum Credit Hours in Electives	12
Total Credit Hours Required	116

*"Manipulative Laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

MECHANICAL DRAFTING AND DESIGN TECHNOLOGY, T-043

Mechanical drafting and design technicians translate the ideas, rough sketches, specifications, and calculations of designers and engineers into accurate, working drawings which are used by skilled machinists and tool makers to make product models, tools, and fixtures. The technician may be involved in calculating the strength, reliability, and cost of materials, or he may produce drawings and specifications which graphically describe exactly what materials and processes are to be used on a particular job. He must also be able to use engineering handbooks and tables that will assist him in solving technical problems.

Primary employers of mechanical drafting and design technicians are the machinery, electrical equipment, fabricated metal products, and transportation equipment industries. Nonmanufactruing industries such as engineering and architectural consulting firms, construction companies, and public utility companies also employ large numbers of mechanical drafting technicians. As these technicians gain skill and experience, they may advance to position of checkers, detailers, senior draftsmen, or supervisors. Many, who have gained experience and have creative ability, will become designers of tools, jigs and fixtures, dies, and production items. Others will transfer into engineering positions. The increasingly complex design problems of modern products and processes will continue to keep the demand for trained mechanical drafting and design technicians as supporting personnel at a high level.

MECHANICAL DRAFTING AND DESIGN TECHNOLOGY, T-043

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
T-MAT	100B	Pre-Technical Mathematics	5	0	5
T-DFT	101	Drafting I	3	9*	6
T-EGR	101	Introduction to Engineering Technology	3	0	3
T-MEC	101	Machine Processes I	3	2	4
			14	11	18
SECOND QUARTER					
T-MAT	101	Technical Mathematics I	5	0	5
T-DFT	102	Drafting II	3	9*	6
T-PHY	101	Physics: Properties of Matter	3	2	4
T-ENG	101	Communication Skills I	3	0	3
			14	11	18
THIRD QUARTER					
T-MAT	102	Technical Mathematics II	5	0	5
T-DFT	103	Drafting III	3	9*	6
T-PHY	102	Physics: Work, Energy, Power	3	2	4
T-MEC	102	Machine Processes II	3	2	4
			14	13	19
FOURTH QUARTER					
T-MAT	103	Technical Mathematics III	5	0	5
T-DFT	205	Design Drafting I	3	9*	6
T-PHY	103	Physics: Electricity	3	2	4
T-MEC	201B	Materials of Industry	5	0	5
			16	11	20
FIFTH QUARTER					
T-DFT	206	Design Drafting II	3	9*	6
T-DFT	204	Descriptive Geometry	2	4	4
T-PHY	106	Applied Mechanics	5	0	5
T-ENG	102	Communication Skills II	3	0	3
			13	13	18
SIXTH QUARTER					
T-DFT	212	Jig and Fixture Design	3	6*	5
T-DFT	211	Mechanisms	2	4	4
T-MEC	205	Strength of Materials	3	2	4
T-ENG	103	Report Writing	3	0	3
T-SSC	--	Social Science Elective	3	0	3
			14	12	19
SEVENTH QUARTER					
T-DFT	213B	Die Design	3	12*	7
T-MEC	235	Hydraulics and Pneumatics	3	2	4
T-ENG	204	Oral Communications	3	0	3
T-SSC	--	Social Science Elective	3	0	3
			12	14	17
				Total Credit Hours Required	129

*"Manipulative Laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

COURSE DESCRIPTIONS, TWO-YEAR TECHNICAL PROGRAMS

The following course descriptions are listed with a four-letter prefix followed by a three digit number. This identification is for credit courses in the associate degree programs offered by Blue Ridge Technical Institute.

The course title is listed in bold type. This is followed by three numbers which indicate the number of lecture hours in a course, the number of laboratory hours, and the number of credit hours in that order.

T-BUS 101 Introduction to Business 5 0 5

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.
Prerequisite: None

T-BUS 102 Typewriting I 2 3* 3

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.
Prerequisite: None

T-BUS 103 Typewriting II 2 3* 3

Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms.
Prerequisite: T-BUS 102 or equivalent. Speed requirement, 30 words per minute for five minutes.

T-BUS 104 Typewriting III 2 3* 3

Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms.
Prerequisite: T-BUS 103 or the equivalent. Speed requirement, 40 words per minute for five minutes.

T-BUS 106 Shorthand I 3 2 4

A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.
Prerequisite: None

T-BUS 107 Shorthand II 3 2 4

Continued study of theory with greater emphasis on dictation and elementary transcription.
Prerequisite: T-BUS 106 or equivalent

T-BUS 108 Shorthand III 3 2 4

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription.
Prerequisite: T-BUS 107

T-BUS 110 Office Machines I 2 3* 3

A general survey of business and office machines. Students will receive training in techniques, processes, operation, and application of ten-key adding machines, full keyboard adding machines, and calculator.
Prerequisite: None

T-BUS 112 Filing 3 0 3

Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes, and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal filing.
Prerequisite: None

T-BUS 115 Business Law I 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.
Prerequisite: None

T-BUS 116 Business Law II 3 0 3

Includes the study of laws pertaining to bailments, sales, riskbearing, partnership-corporation, mortgages, and property rights.
Prerequisite: T-BUS 115

T-BUS 120 Accounting I 3 2 4

Principles, techniques, and tools of accounting for understanding of the mechanics of accounting. Collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises. Practical application of the principles learned are included.
Prerequisite: T-MAT 110

T-BUS 121 Accounting II 3 2 4

Principles and practices in dealing with notes receivable, accounts receivable, notes payable, accounts payable, depreciation, insurance, inventory methods, internal controls, payrolls, and federal and state taxes. Recording, summarizing, and interpreting data for management control, and the contribution of accounting services in the recognition and solution of management problems are emphasized.
Prerequisite: T-BUS 120

T-BUS 123 Business Finance I 3 0 3

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing.
Prerequisite: None

T-BUS 124 Business Finance II 3 0 3

Financing federal, state, and local government and the ensuing effects upon the economy. Factors affecting supply of funds and monetary and credit policies are covered.
Prerequisite: T-BUS 123

T-BUS 183E Terminology and Vocabulary 3 0 3

To develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices.
Prerequisite: None

T-BUS 191 Payroll Procedures 3 0 3

Designed to familiarize student with basic forms of remuneration, procedures for deductions, methods of computation of earnings, basic information concerning withholding and employer's payroll taxes, and other areas basic to handling payrolls for industrial, professional, or business firms.
Prerequisite: None

T-BUS 205 Advanced Typewriting 2 3* 3

Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, methods of duplication, statistical tabulation, and the typing of reports, manuscripts, and legal documents.
Prerequisite: T-BUS 104, Speed requirement, 50 words per minute for five minutes.

T-BUS 206E Dictation and Transcription I (Executive) 3 2 4

Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material.
Prerequisite: T-BUS 108

T-BUS 207E Dictation and Transcription II (Executive) 3 2 4

Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.
Prerequisite: T-BUS 206

T-BUS 208E Dictation and Transcription III (Executive) 3 2 4

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.
Prerequisite: T-BUS 207

T-BUS 210E Typing Office Practice (Executive) 3 2 4

Designed to familiarize student with forms and routines found in a typical business. Emphasis placed upon correct procedures and adaptability to varying office methods.
Prerequisite: T-BUS 205

T-BUS 211 Office Machines II 2 3* 3

Instructions in the operation of the bookkeeping-accounting machines, duplicating equipment, and dictating and transcribing machines.
Prerequisite: T-BUS 110

T-BUS 212 Machine Transcription 2 3* 3

A study and practice course in the use of transcribing machines in business dictation. Proficiency in word usage, correct grammar, and letter styles will styles will be emphasized.
Prerequisite: T-BUS 103

T-BUS 214 Secretarial Procedures 3 2 4

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.
Prerequisite: None

T-BUS 219 Credit Procedures and Problems 3 0 3

Principles and practices in the extension of credit, collection procedures, laws pertaining to credit extension, and collection are included.
Prerequisite: T-BUS 120

T-BUS 222 Accounting III 3 2 4

Partnership and corporation accounting with thorough treatment of general accounting. The balance sheet, income and surplus investments, and analysis of working capital are covered.
Prerequisite: T-BUS 121

T-BUS 225 Interpreting Accounting Records 3 0 3

Designed to aid the student in developing a "use understanding" of accounting records, reports, and financial statements. Interpretation, analysis, and utilization of accounting statements.
Prerequisite: T-BUS 121

T-BUS 229 Taxes 3 2 4

Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance.
Prerequisite: T-BUS 121

T-BUS 232 Sales Development 3 0 3

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for the execution of sales demonstrations required.
Prerequisite: None

T-BUS 235 Business Management 3 0 3

Principles of business management including overview of major functions of management such as planning, staffing, controlling, directing, and financing. Clarification of the decision-making function versus the operating function. Role of management in business, qualifications, and requirements.
Prerequisite: None

T-BUS 239 Marketing 5 0 5

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process.
Prerequisite: None

T-BUS 243 Advertising 3 2 4

The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media.
Prerequisite: None

T-BUS 245 Retailing 3 0 3

A study of the role of retailing in the economy including development of the present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends.
Prerequisite: None

T-BUS 247 Business Insurance 3 0 3

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included.
Prerequisite: None

T-BUS 266 Budget and Record Keeping 3 0 3

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the role they play. Emphasis on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning.
Prerequisite: T-BUS 121

T-BUS 271 Office Management 3 0 3

Presents the fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing and actuating office problems.
Prerequisite: None

T-BUS 272 Principles of OF Supervision 3 0 3

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision are stressed.
Prerequisite: None

T-DFT 101 Drafting I 3 9* 6

An introduction to the basic theory of engineering drawing, its content, and the instruments and skills necessary to make acceptable drawings. Basic geometric constructions, lettering, theory and practice of orthographic projection, and standards and practices of dimensioning are covered. Principles of isometric, oblique, and perspective drawing are introduced.
Prerequisite: None

T-DFT 102 Drafting II 3 9* 6

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Graphical analysis of space problems introduced. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and "working drawings" approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.
Prerequisite: T-DFT 101

T-DFT 103 Drafting III 3 9* 6

Intersection and developments and their practical solutions. Where applicable, model solutions accompany the problems. The various techniques employed to produce and render isometric and oblique drawings, and isometric, dimetric, and trimetric projections will be studied.
Prerequisite: T-DFT 102

T-DFT 204 Descriptive Geometry 2 4 4

Graphic analysis of space problems involving points, lines, planes,connectors, and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization shall be stressed on every problem.
Prerequisites T-DFT 102, T-MAT 102

T-DFT 205 Design Drafting I 3 9* 6

Basic design is introduced in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings, and simplified drafting practices constitute areas of study. Types and methods of specifying

materials and workmanship are an integral part of the course.
Prerequisites: T-DFT 103, T-MAT 102, T-PHY 102

T-DFT 206 Design Drafting II 3 9* 6

Research to solve a problem in design by consulting various manuals, periodicals, and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and sub-assembly drawings, pictorial drawings, exploded pictorial assembly, patent drawings, and specifications are required as a part of the problem.
Prerequisites: T-DFT 205

T-DFT 211 Mechanisms 2 4 4

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.
Prerequisites: T-DFT 205 & 204, T-MAT 103, T-PHY 106

T-DFT 212 Jig and Fixture Design 3 6* 5

Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jigs and fixtures and their design.
Prerequisite: T-DFT 205

T-DFT 213B Die Design 3 12* 7

This course is designed to introduce the student to the various types of dies that are most widely used in industry today. Topics to be covered are: the design, use, and construction of blanking dies, forming dies, compound dies, combination dies, draw dies, trim dies, cam dies, and progressive dies. In addition, press information and selection, die materials and equipment, safety features, production factors, costs and other related information, which is important to the designer, will be included in the course.
Prerequisites: T-DFT 101, T-DFT 102, T-DFT 103, T-DFT 205, T-DFT 206, T-DFT 204, T-DFT 212, and T-DFT 211

T-ECO 102 Economics I 3 0 3

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.
Prerequisite: None

T-ECO 104 Economics II 3 0 3

Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems.
Prerequisite: T-ECO 102

T-ECO 108 Consumer Economics 3 0 3

Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources, and to understand better the economy in which he lives.
Prerequisite: None

T-EDP 104 Introduction to Data Processing Systems 3 2 4

Fundamental concepts and operational principles of data processing systems. Various data processing machines and their operation are introduced.
Prerequisite: None

T-EGR 101 Introduction to Engineering Technology 3 0 3

An introductory course in the field of engineering technology. The various roles filled by technicians in industry and the opportunities for upwar mobility within industry are discussed. The overall objectives of a technical education are discussed.
Prerequisite: None

T-ENG 101 Communication Skills I 3 0 3

Designed to aid the student in the improvement of self-expression in basic communications. Functional approach utilized emphasizing grammar, diction, sentence structure, punctuation, and spelling.
Prerequisite: None

T-ENG 102 Communication Skills II 3 0 3

Designed to develop additional skills in written communications. Practice is provided for student in gathering, organizing, and presenting expository material with emphasis upon the paragraph and short compositions. A graduated scale of activities to develop confidence in written communications necessary in social, business, and industrial situations is presented.
Prerequisite: T-ENG 101

T-ENG 103 Report Writing 3 0 3

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum.
Prerequisite: T-ENG 102

T-ENG 204 Oral Communications 3 0 3

A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention given to conducting meetings, conferences, and interviews.
Prerequisite: T-ENG 101

T-ENG 206 Business Communications 3 0 3

Develops skills in techniques in writing business communications. Emphasis placed on writing action-getting sales letters; letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances, and inquiry; and on writing business reports and summaries of business conferences.
Prerequisite: T-ENG 102

T-MAT 100B Pre-Technical Mathematics 5 0 5

Introduction to mathematics including operations with decimal system of numbers, fractions, powers of ten, exponential notation, and basic algebraic operations and concepts. Includes introduction and basic use of the slide rule.
Prerequisite: None

T-MAT 101 Technical Mathematics I 5 0 5

Fundamental algebraic operations introduced. Application of these principles to practical problems is stressed.
Prerequisite: T-MAT 100-B or equivalent

T-MAT 102 Technical Mathematics II 5 0 5

Advanced algebraic and fundamental trigonometric topics including quad-

ratics, logarithms, progressions, the binomial expansion, complex number, and solution of oblique triangles.
Prerequisite: T-MAT 101

T-MAT 103 Technical Mathematics III 5 0 5

Fundamental concepts of analytical geometry and differential and integral calculus are introduced. Topics included are differentials, rate of change, and integral and basic integration techniques. Application of these concepts is stressed.
Prerequisite: T-MAT 102

T-MAT 110 Business Mathematics 5 0 5

This course stresses the fundamental operations and their application to business probelms. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.
Prerequisite: None

T-MEC 101 Machine Processes I 3 2 4

An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of modern industry. It will include a study of measuring instruments, characteristics of metals, and cutting tools. The student will become famialiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.
Prerequisite: None

T-MEC 102 Machine Processes II 3 2 4

Advanced operations on lathe. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, precision grinding operations, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.
Prerequisite: T-MEC 101

T-MEC 201B Materials of Industry 5 0 5

Introductory course in the basic properties of metals and ailoys used in industry. Selecting the proper metal for a given use through the use of research methods is emphasized.
Prerequisite: T-PHY 101

T-MEC 205 Strength of Materials 3 2 4

Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components.
Prerequisites: T-PHY 106, T-MAT 103

T-MEC 235 Hydraulics and Pneumatics 3 2 4

The basic theories of hydraulic and pneumatic systems. Combinations of systems in various cirucits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reserviors.
Prerequisite: T-PHY 102

T-PHY 101 Physics: Properties of Matter 3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course.
Prerequisite: T-MAT 100B or equivalent

T-PHY 102 Physics: Work, Energy, Power 3 2 4

The major areas covered in this course are work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas.
Prerequisites: T-PHY 101, T-MAT 101

T-PHY 103 Physics: Electricity 3 2 4

Basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major subjects studied in this course.
Prerequisites: T-PHY 101, T-MAT 102

T-PHY 106 Applied Mechanics 5 0 5

Concepts and principles of statics and dynamics. Parrallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion.
Prerequisites: T-MAT 103, T-PHY 103

T-PSY 112 Professional Secretarial Development 3 0 3

Designed to assist the student in recognizing the importance of personality, charm, grooming, poise, and emotions in becoming a professional secretary. Job interview procedures, human and public relations, and various methods of personal improvement are covered.
Prerequisite: None

T-PSY 201B Industrial and Business Psychology 3 0 3

A study of people in industrial and business situtations and how they behave. Emphasis is placed on how the individual must relate to the behavior of members of an industrial or business group.
Prerequisite: None

T-PSY 206 Applied Psychology 3 0 3

A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community:
Prerequisite: None

T-SSC 201 Social Science I 3 0 3

An integrated course in the social sciences, drawing from the field of anthropology, psychology, history, and sociology.
Prerequisite: None

T-SSC 202 Social Science II 3 0 3

A further study of social sciences with emphasis on economics, political science, and social problems as they relate to the individual.
Prerequisite: None

ONE-YEAR VOCATIONAL DIPLOMA PROGRAMS

The one-year vocational diploma programs described below are organized on a four quarter basis, each quarter consisting of eleven weeks or fifty-five school days. The graduate of these curriculums is awarded a diploma in the name of the North Carolina State Board of Education and Blue Ridge Technical Institute.

Diplomas are awarded in four areas of study in the vocational division of the institute:

VOCATIONAL DIVISION

Areas of Study

Automotive Mechanics
Electrical Installation and Maintenance
Practical Nursing Education
Welding

AUTOMOTIVE MECHANICS, V-003

The complexity of modern automotive vehicles increases each year due to new scientific discovery and engineering. These changes are reflected not only in passenger vehicles but also in trucks, buses, and a variety of gasoline-powered equipment. It is therefore very important that our communities prepare trained individuals to maintain and repair these vehicles.

The modern automotive mechanic must be prepared to maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities, he will be required to service tractors or marine engines and other gasoline-powered equipment. The trained mechanic must utilize a vast knowledge of automotive theory and mechanical skill along with modern testing machines, electronic equipment, and shop manuals and technical publications in order to inspect, diagnose, and repair troubles which develop in vehicles or motors. In some areas, the mechanic may specialize in one type of repair such as power steering, front-end, brakes, automatic transmission, or tune-up of engines. These specialists must also have an all-around knowledge of automotive repair as they are often called on to perform other types of repair work.

The automotive mechanics curriculum prepares the student to fill these roles by giving him the necessary theoretical courses and practical training on mock-ups and actual vehicles so that, upon graduation, he may enter a shop and earn a living as an automotive mechanic. Through additional continuing education he should be able to advance rapidly in his field.

AUTOMOTIVE MECHANICS, V-003

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
PME	1101	Internal Combustion Engines	3	12*	7
MAT	1101	Fundamentals of Mathematics	5	0	5
PHY	1101	Applied Science I	3	2	4
PSY	1101	Human Relations	3	0	3
			14	14	19
SECOND QUARTER					
PME	1102	Engine Electrical and Fuel Systems	6	12*	10
DFT	1101	Schematics and Diagrams: Power Mechanics	0	3*	1
PHY	1102	Applied Science II	3	2	4
BUS	1103	Small Business Operations	3	0	3
			12	17	18
THIRD QUARTER					
AUT	1123	Automotive Chassis and Suspension Systems	3	9*	6
AUT	1121	Braking Systems	3	3*	4
AHR	1101	Automotive Air Conditioning	2	3*	3
WLD	1101	Basic Gas Welding	2	3*	3
ENG	1101	Basic Communication Skills I	2	0	2
			12	18	18
FOURTH QUARTER					
AUT	1124	Automotive Power Train Systems	3	9*	6
AUT	1125	Automotive Servicing	3	12*	7
ENG	1102	Basic Communication Skills II	3	0	3
			9	21	16

Total Credit Hours Required 71

*"Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

ELECTRICAL INSTALLATION AND MAINTENANCE, V-018

A rapidly expanding national economy, the increase in population, and the increasing development of new electrical products are providing a growing need for qualified tradesmen to install and maintain electrical equipment. More than 350,000 persons were employed either as construction or maintenance electricians by the mid-1960's, and between 5,000 and 10,000 additional tradesmen are required each year to replace those leaving the industry. Therefore, the employment outlook for individuals with training in this trade looks very good for a long period in the future.

The graduate of an electrical trades program will be prepared to enter employment as an on-the-job trainee or apprentice. His initial job will involve working as an assistant in the planning, layout, installation, check out, and maintenance of electrical systems in residential property or in commercial and industrial plants and shops. To do this, the trainee must acquire an understanding of the fundamentals of the National Electrical Code regulations as they relate to wiring installations, elec-

trical circuits, and the measurements of voltage, current, power, and power factors of single and polyphase alternating circuits. He must also acquire a basic knowledge of motors and motor control systems, industrial electronic control systems, business procedures in the electrical trades, communication skills necessary on the job, mathematics, and blueprint reading skills.

The curriculum offered at Blue Ridge Technical Institute provides the student with experience and training in each of these necessary areas of the electrical trade. Much of the time is spent in laboratory sessions where practical applications of electrical theory are taught. With this training and a program of continuing education after graduation (also offered by the institute), the graduate should be prepared to advance rapidly in the electrical field.

ELECTRICAL INSTALLATION AND MAINTENANCE, V-018

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
ELC	1112	Direct and Alternating Current	3	12*	7
MAT	1115	Electrical Math I	5	0	5
PHY	1101	Applied Science I	3	2	4
DFT	1110	Blueprint Reading: Building Trades	2	3*	3
			13	17	19
SECOND QUARTER					
ELC	1113	Alternating Current and Direct Current Machines and Controls	3	12*	7
MAT	1116B	Electrical Math II	5	0	5
PSY	1101	Human Relations	3	0	3
DFT	1113	Blueprint Reading: Electrical	2	3*	3
			13	15	18
THIRD QUARTER					
ELC	1124	Residential Wiring	6	9*	9
ELN	1118	Industrial Electronics I	4	6*	6
ENG	1101	Basic Communication Skills I	2	0	2
BUS	1103	Small Business Operations	3	0	3
			15	15	20
FOURTH QUARTER					
ELC	1125	Commercial and Industrial Wiring	3	12*	7
ELN	1119	Industrial Electronics II	4	6*	6
ENG	1102	Basic Communication Skills II	3	0	3
			10	18	16
		Total Credit Hours Required			73

*"Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

PRACTICAL NURSING EDUCATION, V-038

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand an increased number of well-trained personnel for health services. Realizing this need, the North Carolina Department of Community Colleges, in conjunction with local hospitals, administers programs of practical nurse education throughout the state.

The aim of the Practical Nurse Education Program at Blue Ridge Technical Institute is to prepare qualified persons for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions. Graduates of this program be eligible to take the licensing examination given by the North Carolina Board of Nursing. This examination is given twice each year, usually in April and September. A passing score entitles the individual to receive a license and to use a legal title "Licensed Practical Nurse." The Licensed Practical Nurse can apply for licensure in other states on the basis of a satisfactory examination score, without repeating the examination.

The LPN is prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices, and public health facilities. In all situations the LPN functions under supervision of a registered nurse and/or licensed physician. This supervision may be minimal in situations where the patient's condition is stable and not complex; or it may consist of continuous direction in situations requiring the knowledge and skills of the registered nurse or physician. In the latter situation, the LPN may function in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program can prepare the individual.

Job requirements for the Licensed Practical Nurse include suitable personal characteristics, ability to adapt knowledge and understandings of nursing principles to a variety of situations, technical skills for performance of patient-side nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and help others, and readiness to conform to the requirements of nursing ethics and hospital or agency policies. An LPN is a well-trained person who assists in the care of patients and fills a much needed place in the health field.

PRACTICAL NURSING EDUCATION, V-038

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week			Quarter
			Class	Lab	Clinical Area	Hours Credit
FIRST QUARTER						
NUR	1101	Fundamentals of Basic Nursing	12	4	3*	15
NUR	1102	Body Structure and Function	5	2	0	6
NUR	1103	Vocational Adjustments	3	0	0	3
NUR	1104	Human Relations	2	0	0	2
			22	6	3	26

SECOND QUARTER						
NUR	1105	Medical-Surgical Nursing I	5	2	0	6
NUR	1106	Maternity Nursing I	3	0	0	3
NUR	1107	Pediatric Nursing I	2	0	0	2
NUR	1108	Pharmacology	2	0	0	2
NUR	1109	Clinical Experience I	0	0	21*	7
			12	2	21	20
THIRD QUARTER						
NUR	1110	Medical-Surgical Nursing II	6	0	0	6
NUR	1111	Maternity Nursing II	3	0	0	3
NUR	1112	Pediatric Nursing II	3	0	0	3
NUR	1113	Clinical Experience II	0	0	21*	7
			12	0	21	19
FOURTH QUARTER						
NUR	1114	Medical-Surgical Nursing III	10	0	0	10
NUR	1115	Vocational Adjustments II	2	0	0	2
NUR	1116	Clinical Experience III	0	0	21*	7
			12	0	21	19
				Total Credit Hours Required		84

*"Manipulative Laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

WELDING, V-050

Recently completed manpower surveys indicate that many welders will be needed annually to fill present and projected vacancies in this state. Thirty-seven of the 103 firms contacted in a recent work-force survey of Henderson County indicated the need for trained welders. In addition to the wide possibilities for employment in welding, this field offers a person prestige, security, and a future of continuous employment with steady advancement. It offers employment in practically any industry: shipbuilding, automotive, aerospace, railroads, construction, pipe fitting, ship production, job shop, and many others.

Welders join metals by applying intense heat, and sometimes pressure, to melt the edges to form a permanent bond. This is done by learning to control heat from either an electric arc or gas welding torch and by adding filler metal where necessary to complete the joint. Closely related to welding is "oxygen cutting" of metal. The teaching of these skills constitute the major portion of the curriculum in welding at Blue Ridge Technical Institute. In addition, the student is given introductory courses in layout and planning, blueprint reading, mathematics, basic metallurgy, human relations, and communication skills. The curriculum will provide the necessary skills for employment as a welder.

WELDING, V-050

CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER					
WLD	1120	Oxyacetylene Welding and Cutting	2	12*	6
MAT	1101	Fundamentals of Mathematics	5	0	5
DFT	1104	Blueprint Reading: Mechanical	0	3*	1
PHY	1101	Applied Science I	3	2	4
PSY	1101	Human Relations	3	0	3
			13	17	19
SECOND QUARTER					
WLD	1121	Arc Welding	3	12*	7
MAT	1103	Geometry	3	0	3
DFT	1117	Blueprint Reading: Welding	0	3*	1
PHY	1102	Applied Science II	3	2	4
BUS	1105	Industrial Organizations	3	0	3
			12	17	18
THIRD QUARTER					
WLD	1124	Pipe Welding	3	12*	7
WLD	1123	Inert Gas Welding	2	3*	3
WLD	1112	Mechanical Testing and Inspection	2	3*	3
DFT	1118	Pattern Development and Sketching	0	3*	1
ENG	1101	Basic Communication Skills I	2	0	2
			9	21	16
FOURTH QUARTER					
WLD	1122	Commercial and Industrial Practices	3	9*	6
WLD	1125	Certification Practices	3	6*	5
MEC	1112	Machine Shop Processes for Welders	0	6*	2
ENG	1102	Basic Communication Skills II	3	0	3
			9	21	16

Total Credit Hours Required 69

*"Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

COURSE DESCRIPTIONS, ONE-YEAR DIPLOMA PROGRAMS

The following course descriptions are listed with a three-letter prefix followed by a four-digit number. This identification is for credit courses in the diploma programs offered by Blue Ridge Technical Institute.

The course title is listed in bold type. This is followed by three numbers which indicate the number of lecture hours in a course, the number of laboratory hours, and the number of credit hours in that order.

Those courses which start with the prefix NUR have four numbers. The third number indicates clinical lab hours, and the fourth number indicates credit hours for the course.

AHR 1101 **Automotive Air Conditioning** 2 3* 3

General introduction to the principles of refrigeration, study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control, and proper handling of refrigerants in charging the system.
Prerequisite: PHY 1102

AUT 1121 **Braking Systems** 3 3* 4

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment, and repair.
Prerequisite: PHY 1102

AUT 1123 **Automotive Chassis and Suspension Systems** 3 9* 6

Principles and functions of the components of the automotive chassis Practical job instruction in adjusting and repairing of suspension and steering systems.
Prerequisite: PME 1102

AUT 1124 **Automotive Power Train Systems** 3 9* 6

Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.
Prerequisites: PHY 1102, AUT 1123

AUT 1125 **Automotive Servicing** 3 12* 7

Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Troubleshooting of automotive systems, providing a full range of experiences in testing, adjusting, repairing, and replacing.
Prerequisites: AUT 1123, AUT 1121, AHR 1101

BUS 1103 **Small Business Operations** 3 0 3

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations.
Prerequisite: None

BUS 1105 **Industrial Organizations** 3 0 3

Methods, techniques, and practices of modern management in planning, organizing, and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product cost.
Prerequisite: None

DFT 1101 **Schematics and Diagrams: Power Mechanics** 0 3* 1

Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.
Prerequisite: None

DFT 1104 **Blueprint Reading: Mechanical** 0 3* 1

Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures, and notes.
Prerequisite: None

DFT 1110 **Blueprint Reading: Building Trades** 2 3* 3

Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches.
Prerequisite: None

DFT 1113 **Blueprint Reading: Electrical** 2 3* 3

Interpretation of schematics, diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be a part of this course.
Prerequisite: DFT 1110

DFT 1117 **Blueprint Reading: Welding** 0 3* 1

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications.
Prerequisite: DFT 1104

DFT 1118 **Pattern Development and Sketching** 0 3* 1

Continued study of welding symbols; methods used in layout of sheet steel; sketching of projects, jigs, and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates.
Prerequisite: None

ELC 1112 **Direct and Alternating Current** 3 12* 7

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel, and series-paralled circuits. An analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. A study of the sources of direct current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.
Prerequisites: None

ELC 1113 **Alternating Current and Direct Current Machines and Controls** 3 12* 7

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or sequencing switches.
Prerequisites: ELC 1112, MAT 1115

ELC 1124 **Residential Wiring** 6 9* 9

Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboards, lighting fusing, wire sizes, branch circuits, conduits, and National Electrical Code regulations in actual building mock-ups.
Prerequisites: ELC 1113, DFT 1110

ELC 1125 **Commercial and Industrial Wiring** 3 12* 7

Layout, planning, and installation of wiring systems in commercial and industrial complexes with emphasis upon blueprint reading and symbols and related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems.
Prerequisites: ELN 1118, ELC 1124

ELN 1118 **Industrial Electronics I** 4 6* 6

Basic theory, operating characteristics, and application of vacuum tubes such as: diodes, triodes, tetrodes, pentodes, and gaseous control tubes. An introduction to amplifiers using triodes, power supplies using diodes, and other basic applications.
Prerequisite: ELC 1113

ELN 1119 **Industrial Electronics II** 4 6* 6

Basic industrial electronic systems such as: motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, and other basic types of systems commonly found in most industries.
Prerequisite: ELN 1118

ENG 1101 **Basic Communication Skills I** 2 0 2

Integrated communications program designed to strengthen reading comprehension, vocabulary, listening skills, and writing skills. Reading laboratory, listening equipment and materials, and individual instruction are utilized.
Prerequisite: None

ENG 1102 **Basic Communication Skills II** 3 0 3

Continuation of training in basic communication skills with increased emphasis upon special speaking and writing skills needed in the student's specialty area. Included in study are shop forms, job orders, basic business letters, and job application forms.
Prerequisite: ENG 1101

MAT 1101 **Fundamentals of Mathematics** 5 0 5

Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.
Prerequisite: None

MAT 1103 **Geometry** 3 0 3

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedral angles, areas of plane figures, and volumes of solids are studied. Geometric principles are applied to shop operations.
Prerequisite: None

MAT 1115 **Electrical Math I** 5 0 5

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations,

use of letters and signs, grouping, factoring, exponents, ratios, and proportions; solution of equations, algebraically and graphically: a study of logarithms and use of tables; an introduction to trigonometric functions and their application to right angles; and a study of vectors for use in alternating current.
Prerequiste: None

MAT 1116B Electrical Math II 5 0 5

Continuation of Electrical Math I with emphasis on practical applications of mathematical principles studied.
Prerequisite: MAT 1115

MEC 1112 Machine Shop Processes For Welders 0 6* 2

To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the basic fundamentals of drill press and lathe operation; hand grinding of drill bits and lathe tools; set-up work applied to the trade.
Prerequisite: None

NUR 1101 Fundamentals of Basic Nursing 12 4 3* 15

The following principles basic to effective and safe nursing care are covered: body mechanics for nurse and patient, sterilization and disinfection methods, use of hospital equipment, and techniques of daily hygenic patient care. Laboratory practice includes beginning skills and hygenic care of the dependent patient.
Prerequisite: None

NUR 1102 Body Structure and Function 5 2 0 6

Thorough study of general plan of the body including the nervous, endocrine, skeletal, muscular, circulatory, digestive, respiratory, urinary, and reproductive systems. Body control of functions of distribution of food and oxygen, waste removal, and provisions for survival are covered.
Prerequisite: None

NUR 1103 Vocational Adjustments I 3 0 0 3

Interpretation of the role of the practical nurse with emphasis on historical background in nursing. Introduction to needs and methods of effective written and spoken communication skills.
Prerequisite: None

NUR 1104 Human Relations 2 0 0 2

Study of the basic principles of human behavior. Designed to aid nursing students in development of attitudes basic to effective nursing practices.
Prerequisite: None

NUR 1105 Medical-Surgical Nursing I 5 2 0 6

Study of material basic to development of understanding of nursing care of patients with common illness problems. Processes of illness, diagnostic tests, physiologic reaction to pain, needs of patients with long-term illness, rehabilitation, pre and post-operative needs, anesthesia agents, and modification of diet for disease conditions are presented.
Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1104

NUR 1106 Maternity Nursing I 3 0 0 3

Study of modern aspects of maternity nursing with emphasis on normal pregnancy, patient needs during antepartal care period, during labor and delivery, and needs of the normal newborn.
Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1104

NUR 1107 Pediatric Nursing I 2 0 0 2

Study of normal child growth and development and nursing needs of the child hospitalized for common or sub-acute illness.
Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1104

NUR 1108 Pharmacology 2 0 0 2

Knowledge and skills necessary for preparing and giving oral and injectable medications are introduced. Sterile techniques used in preparation and giving of injections covered. Selected classes of drugs studied as to actions and responses. Study of source, effects, etc., is provided with each unit in medical-surgical, maternity, and pediatric nursing.
Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1104

NUR 1109 Clinical Experience I 0 0 21* 7

Provides experience in the affiliating hospital in the nursing care of selected patients, who are sub-acutely ill, using skills learned in laboratory practice.
Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1104

NUR 1110 Medical-Surgical Nursing II 6 0 0 6

Continuation of NUR 1105. Additional experiences to develop skills necessary to meet needs of the more-dependent patient.
Prerequisites: NUR 1105, NUR 1106, NUR 1107, NUR 1108, NUR 1109

NUR 1111 Maternity Nursing II 3 0 0 3

Continuation of NUR 1106. Study of complications of the maternity patient and the related nursing care. Abnormalities or disorders of the newborn and their related nursing care are also introduced.
Prerequisites: NUR 1105, NUR 1106, NUR 1107, NUR 1108, NUR 1109

NUR 1112 Pediatric Nursing II 3 0 0 3

Continuation of NUR 1107. Knowledge and skills needed in meeting needs of the acutely ill child are covered.
Prerequisites: NUR 1105, NUR 1106, NUR 1107, NUR 1108, NUR 1109

NUR 1113 Clinical Experience II 0 0 21 7

Provides nursing care experience with selected patients. Correlated with classroom theory.
Prerequisites: NUR 1105, NUR 1106, NUR 1107, NUR 1108, NUR 1109

NUR 1114 Medical-Surgical Nursing III 10 0 0 10

Continuation of NUR 1105 and NUR 1110. Selected nursing care experience of patients with various disorders. Includes care of more critically or seriously ill patients, expands role of the LPN as an assistant to the RN, and covers LPN role in disaster or emergency nursing.
Prerequisities: NUR 1110, NUR 1111, NUR 1112, NUR 1113

NUR 1115 Vocational Adjustments II 2 0 0 2

Covers legal and ethical responsibilities of the Licensed Practical Nurse, opportunities of employment and obligations assumed upon employment. Membership eligibility and benefits of professional nursing organizations are discussed.
Prerequisites: NUR 1110, NUR 1111, NUR 1112, NUR 1113

NUR 1116 Clinical Experience III 0 0 21* 7

Experience in the care of critically or seriously ill patients. Functioning in the role of an assistant is emphasized. Experience in the administration of medications is provided under the direct supervision of the clinical instructor.
Prerequisites: NUR 1110, NUR 1111, NUR 1112, NUR 1113

PHY 1101 **Applied Science I** **3** **2** **4**

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles.
Prerequisite: None

PHY 1102 **Applied Science II** **3** **2** **4**

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry, and principles of force, motion, work, energy, and power.
Prerequisite: PHY 1101

PME 1101 **Internal Combustion Engines** **3** **12*** **7**

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance, servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems, proper lubrication, and methods of testing, diagnosing and repairing.
Prerequiste: None

PME 1102 **Engine Electrical and Fuel Systems** **6** **12*** **10**

A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system.
Prerequisite: PME 1101

PSY 1101 **Human Relations** **3** **0** **3**

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.
Prerequisite: None

WLD 1101 **Basic Gas Welding** **2** **3*** **3**

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver-smoldering, and flamecutting methods applicable to mechancial repair work.
Prerequisite: None

WLD 1112 **Mechanical Testing and Inspection** **2** **3*** **3**

The standard methods for mechanical testing of welds are covered. The student is introduced to the various types of tests and testing procedures and performs the details of the test which will give adequate information as to the quality of the weld. Types of tests to be covered are: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, tee-bend, nondestructive, V-notch, Charpy impact, etc.
Prerequisites: WLD 1120, WLD 1121

WLD 1120 **Oxyacetylene Welding and Cutting** **2** **12*** **6**

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures in the use of tools and equipment

are stressed throughout the program of instruction. Students perform mechanical testing and inspection to determine quality of the welds.
Prerequisite: None

WLD 1121 Arc Welding 3 12* 7

The operation of AC transformers and DC motor generator arc welding sets studied. Studies are made of welding heats, polarities and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment.
Prerequisite: None

WLD 1122 Commercial and Industrial Practices 3 9* 6

Designed to build skills through practices in simulated industrial processes and techniques: sketching and laying out on paper the size and shape description, listing the procedure steps necessary to build the product, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding application, field welding, and nondestructive tests and inspection.
Prerequisites: WLD 1120, WLD 1121

WLD 1123 Inert Gas Welding 2 3* 3

Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety, and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding.
Prerequisites: WLD 1120, WLD 1121

WLD 1124 Pipe Welding 3 12* 7

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME Code.
Prerequisite: WLD 1121

WLD 1125 Certification Practices 3 6* 5

This course involves practice in welding the various materials to meet certification standards. The student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skill in producing quality welds.
Prerequisites: WLD 1120, WLD 1121, WLD 1123, WLD 1124

EVENING CURRICULUM CLASSES

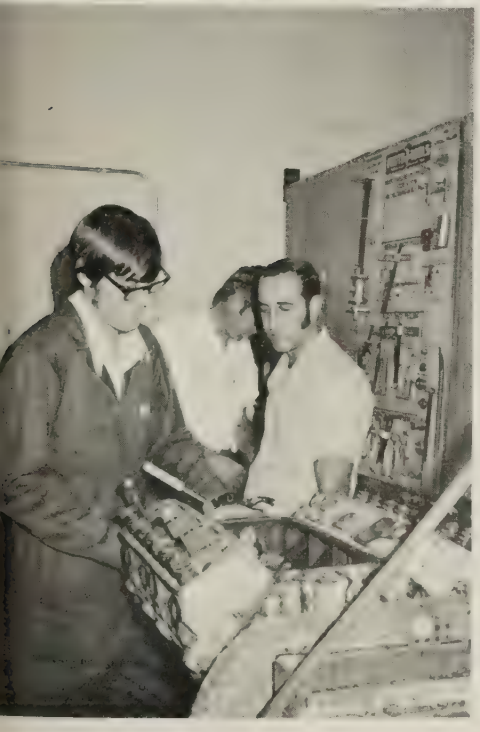
Students may earn the diploma in Electrical Installation and Maintenance by attending classes during the evening for eight (8) quarters. Classes are conducted at the Institute between the hours of 6:00 P.M. and 10:00 P.M. The cost for this program is $2.50 per quarter credit hour. Students interested in this program should file the necessary application for curriculum programs with the Office of Student Personnel Services.

ELECTRICAL INSTALLATION AND MAINTENANCE, V-018

EVENING CURRICULUM BY QUARTERS

Course No.		Course Title	Hours Per Week		Quarter Hours
			Class	Lab	Credit
FIRST QUARTER					
ELC	1112A	Direct and Alternating Current	2	6*	4
MAT	1115	Electrical Math I	5	0	5
			7	6	9
SECOND QUARTER					
ELC	1112B	Direct and Alternating Current	1	6*	3
MAT	1116B	Electrical Math II	5	0	5
BUS	1103	Small Business Operations	3	0	3
			9	6	11
THIRD QUARTER					
ELC	1113A	Alternating Current and Direct Current Machines and Controls	2	6*	4
PHY	1101	Applied Science I	3	2	4
ENG	1101	Basic Communication Skills I	2	0	2
			7	8	10
FOURTH QUARTER					
ELC	1113B	Alternating Current and Direct Current Machines and Controls	1	6*	3
DFT	1110	Blueprint Reading: Building Trades	2	3*	3
PSY	1101	Human Relations	3	0	3
			6	9	9
FIFTH QUARTER					
ELC	1124	Residential Wiring	6	9*	9
SIXTH QUARTER					
ELN	1118	Industrial Electronics I	4	6*	6
DFT	1113	Blueprint Reading: Electrical	2	3*	3
			6	9	9
SEVENTH QUARTER					
ELN	1119	Industrial Electronics II	4	6*	6
ENG	1102	Basic Communication Skills II	3	0	3
			7	6	9
EIGHTH QUARTER					
ELC	1125	Commercial and Industrial Wiring	3	12*	7
				Total Credit Hours Required	73

*"Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.



DIRECTORY OF CORRESPONDENCE

PRESIDENT

Policy, Gifts, Bequests, Endowment, Faculty Appointments

DIRECTOR OF OCCUPATIONAL EDUCATION

Curriculum planning, Faculty Appointments, Federal Programs, Curriculum Programs

DIRECTOR OF ADULT EDUCATION

Adult Basic Education (Grades 1-8), High School Adult Education (9-12), Community Service Classes, High School Equivalency Test (GED), Transylvania Adult Center.

DIRECTOR OF EXTENSION

Business and Industry Occupational Extension Programs.

DIRECTOR OF STUDENT PERSONNEL

Admissions, Financial Aid, Housing, Testing, Counseling, Student Employment, Veterans Affairs, Descriptive Literature, Student Welfare, Student Activities.

REGISTRAR

Transcript of Records, Request for Transcripts, Grades, Graduation.

BUSINESS MANAGER

Payment of Fees, Financial Arrangements, Student Accounts, General Business.

LIBRARIAN, LEARNING LAB COORDINATOR

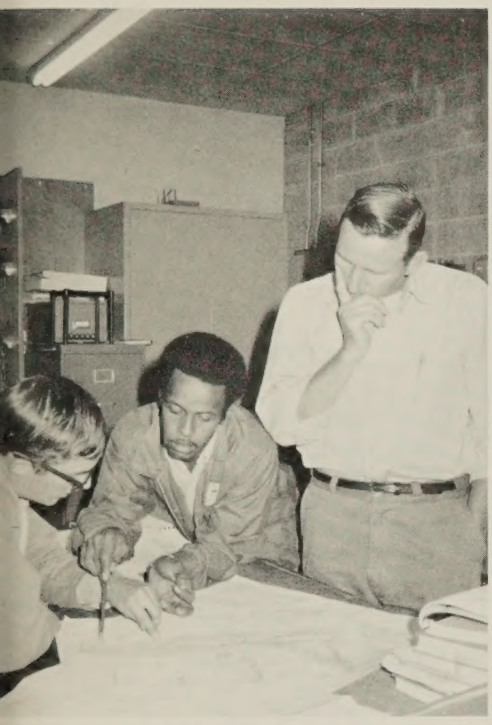
Programmed Materials, Individualized Instruction, Technical and Vocational Books, Community Services.

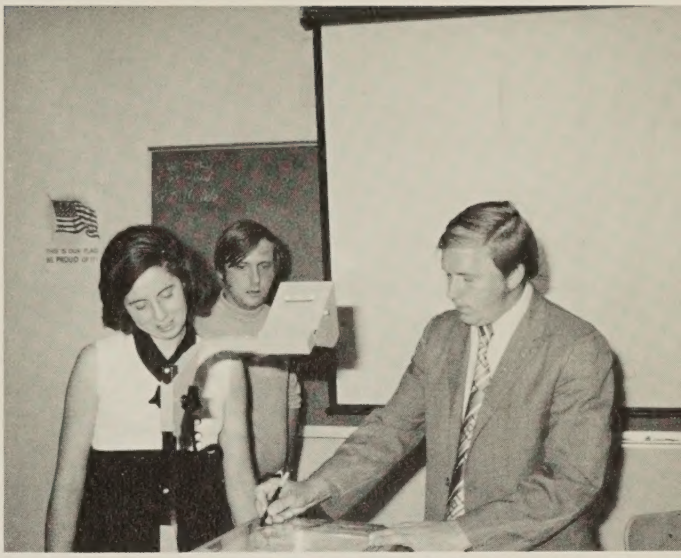
CORRESPONDENCE SHOULD BE ADDRESSED TO THE APPROPRIATE OFFICE LISTED ABOVE AT THE FOLLOWING ADDRESS:

BLUE RIDGE TECHNICAL INSTITUTE

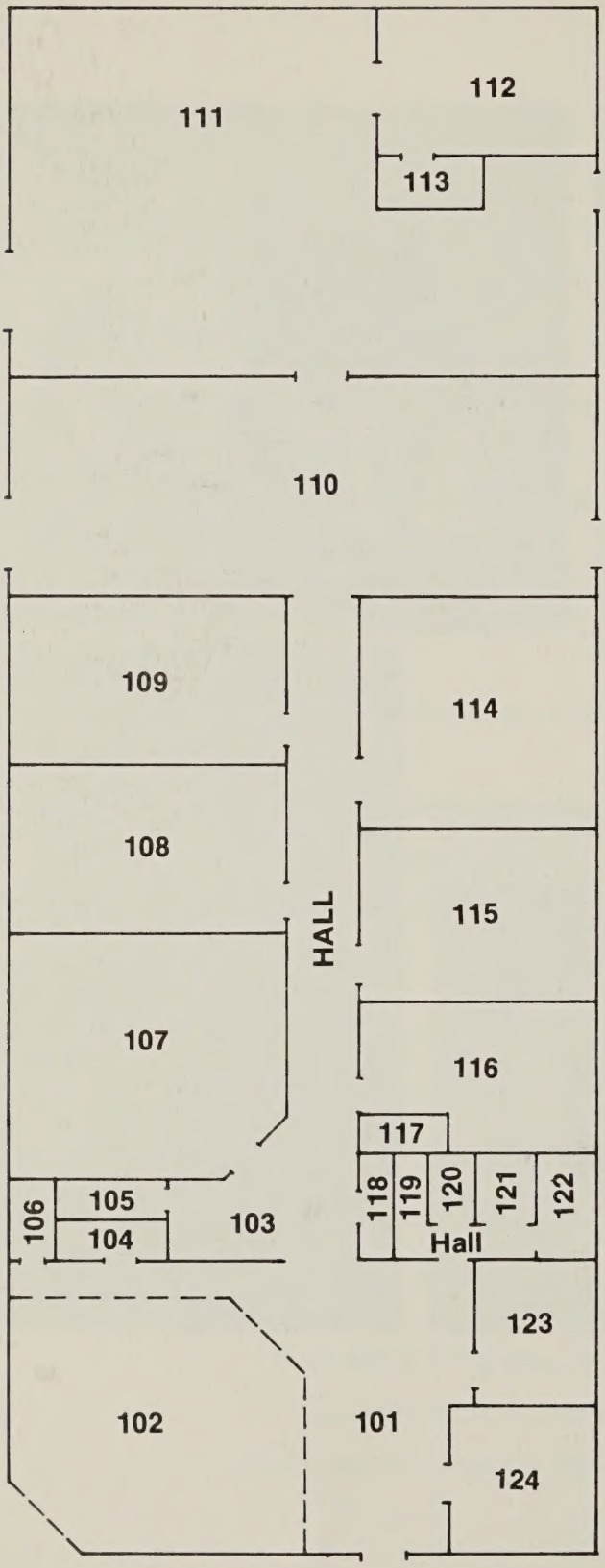
101 NORTH CHURCH STREET

HENDERSONVILLE, NORTH CAROLINA 28739





FLOOR PLAN OF BLUE RIDGE TECHNICAL INSTITUTE



LEGEND

101 Reception
102 Learning Resource Center
103 Student Lounge
104, 105, 106 Rest Rooms
107 Drafting
108 Business Administration
109 Executive Secretarial - Typing
110 Automotive Lab
111 Welding Lab
112 Student Lounge
113 Storage
114 Electrical Lab
115 Physics
116 General Classroom
117 Storage
118 Bookstore
119 Supply Room
120 Bookkeeper
121 Director of Occupational Education
122 Directors, Adult Education and Extension
123 President
124 Student Personnel

STATE LIBRARY OF NORTH CAROLINA
3 3091 00825 4211

FROM:

BLUE RIDGE TECHNICAL INSTITUTE
101 NORTH CHURCH STREET
HENDERSONVILLE, NORTH CAROLINA 28739

NON-PROFIT ORG.
U.S. POSTAGE
PAID
HENDERSONVILLE, N. C. 28739
PERMIT NO. 24